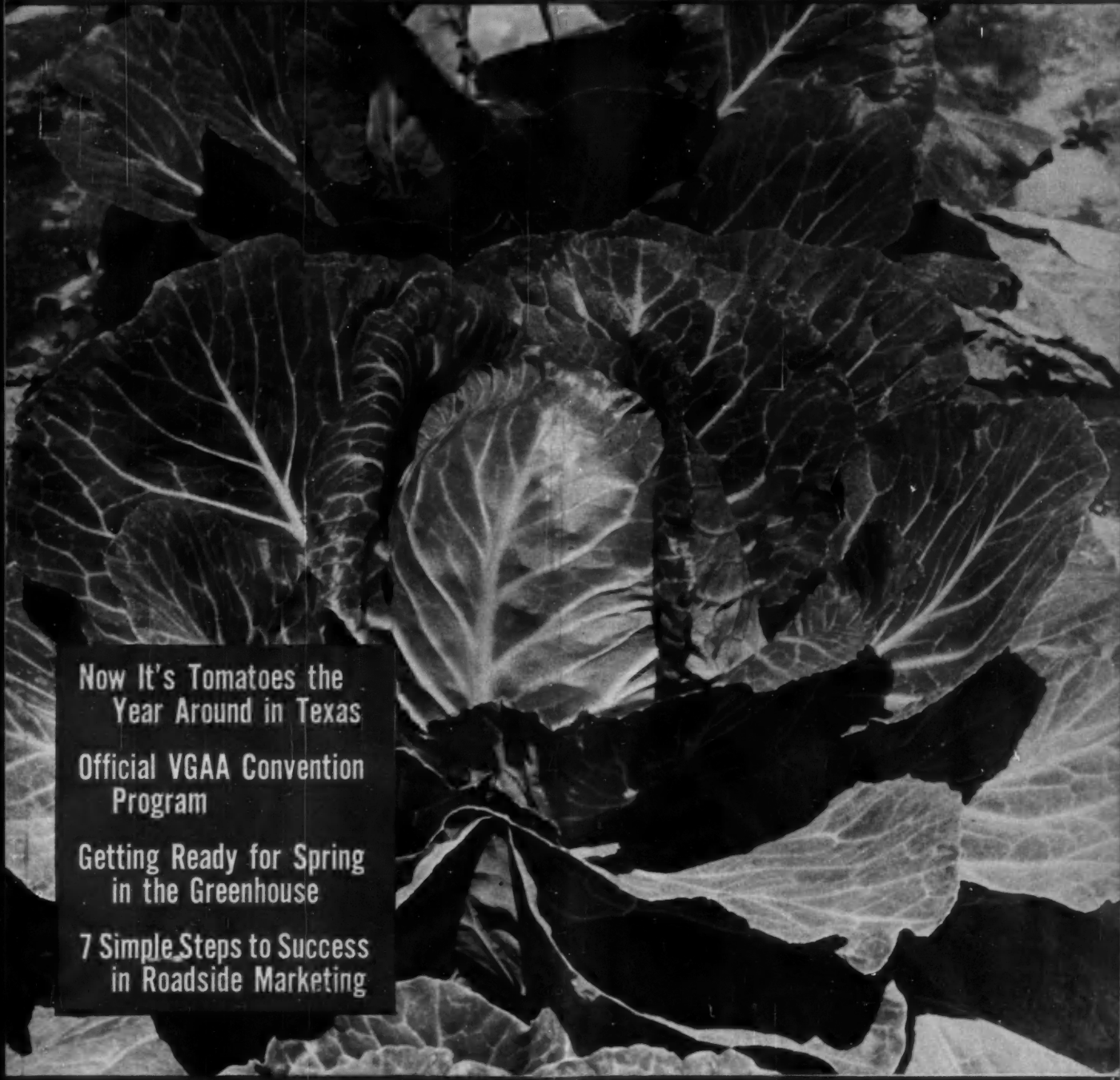


American Vegetable Grower

NOVEMBER • 1960

25 CENTS

VARIETIES • CULTURE • PACKING • MARKETING



Now It's Tomatoes the
Year Around in Texas

Official VGAA Convention
Program

Getting Ready for Spring
in the Greenhouse

7 Simple Steps to Success
in Roadside Marketing

"Chain" Buying Habits—A Special Report by John Carew



National Farm City Week
November 18-24

E. H. Council (left) and Firestone man H. B. Thackston.

reports E. H. Council, Ruskin, Florida. "In a large vegetable operation like ours, especially in busy seasons—our trucks have to keep rolling. That's why we rely on Firestones. They take the rough knocks and round-the-clock workouts we'll give them, and our Firestone man, H. B. Thackston, backs them up with 100% service."

Like E. H. Council, you'll find Firestone truck tires deliver extra service at no extra cost!

- **FIRESTONE RUBBER-X**, the longest wearing rubber ever used in Firestone truck tires, greatly prolongs tread life.
- **FIRESTONE SHOCK-FORTIFIED CORD** gives you built-in strength for top impact resistance in roughest hauling.
- **FIRESTONE SUPER ALL TRACTION TIRE**: extra deep tread, all season tire for traction on highways, mud or snow.
- **FIRESTONE ALL TRACTION TIRE**: improved road mileage with top traction for feed lots, soft fields and lanes.
- **FIRESTONE TRANSPORT TIRE**: designed and built for maximum mileage at minimum cost on general farm hauling.

"Firestones helped us end tire downtime in busy seasons!"

Extra service at no extra cost—that's the Firestone story over and over again! See your Firestone Dealer or Store about the complete line of Firestone farm tractor and implement tires, too. And remember, Firestone's **FREE NEW TRACTOR TIRE LOANER SERVICE** keeps your equipment working during retreads and repairs.

SAVE AND BE SURE
with Firestone tires on all your wheels!

TRACTOR
 All Traction
 Champion*

TRUCK
 Super All Traction*
 All Traction*
 Transport*

CAR
 De Luxe
 Champion*
 *Firestone T.M.

CONVENIENT TERMS

Firestone

BETTER RUBBER FROM START TO FINISH

Copyright 1960, The Firestone Tire & Rubber Company

Tune in Eyewitness to History every Friday evening, CBS Television Network.

For Greater Profits Plant *Holmes* Seeds

Holmes Honey Gold

We introduced this last year for the first and the response has been terrific. We believe it is the finest corn in its class. Superior to Carmelcross. It combines heavy yields with the desired small kernels and excellent quality. Ears are $7\frac{1}{2}$ -8 inches long, 14 to 16 rows. Stalks are stiff, resists lodging and has few suckers. 74 days



HONEY GOLD



Mt. Hood

Here is the Cauliflower you have been looking for. Heads are large, firm and heavy. Inside leaves cover the head completely. It follows Super Snowball and is adapted for either summer or fall cutting. It will stand summer heat and its deep root system gives it a definite advantage in dry weather.



Holmes Early Giant Hybrid F-1

This is the largest early fruited tomato offered. In tests throughout the mid-west it averaged over 7 ounces and was one of the heaviest yielders in trial. Fruits are smooth, rich red in color, thick walls and excellent interior. Where size and earliness is important try Holmes Early Giant Hybrid.

ATTENTION FLOWER PLANT GROWERS. See Holmes Catalog with full color insert for the newest introductions for 1961.

Send for our free Market Growers and Florist Catalog. Available about December 1.

Holmes SEED CO. 1017 9th Street SW, Canton, Ohio



PLUS APPEAL... at the Point of Sale
*...when you use this modern styled packaging
 for fresh tomatoes, vegetables and fruits*

Luscious, tempting, inviting — appeal that buyers can't resist!

You'll give your fresh tomatoes and produce that plus appeal when you send them to market in packages that tenderly protect and maintain their fresh quality and appearance.

These colorful cushioned construction baskets, decorated in smart modern designs, give your product added stand-out appearance in the market place — and you'll build increased acceptance with *your own* brand identification imprinted on each unit.

Select from this complete line of 2, 4, 8 and 12 quart baskets. Wood or wire handles optional; shipped flat; fast, easy set-up. Also consumer size prepacks.



Ask for our AGRICULTURAL PACKAGING CATALOG — giving detailed information on the complete Packaging Corporation line of baskets, containers and packs for all kinds of produce and horticultural products. Prices and samples on request.

Planned Packaging moves produce

Packaging Corporation of America

Regional Sales Offices: Grand Rapids, Michigan • Quincy, Illinois • Rittman, Ohio

**New From Letherman's
for 1961**



**Pepper Yolo Wonder
"L"**

Reselected by Asgrow for taller plants to give a heavy set without crowding in the crown and a higher percentage of No. 1 fruits throughout picking. Fruits larger and deeper than other strains.

Harvester Beans

Bring higher prices for you

Fills the basket with top fancy beans, commanding better market prices when picked before more than 10% of the pods have reached maximum size. An exceptionally heavy yielder, even at that stage. Plants erect and vigorous carrying the pods well up. Tolerant to rust and root rot even in wet weather.

Reserve your supply of these now and ask for complete catalog. Ready early December.



Flower Plant Growers

Petunias for 1961

List ready now and we'll be glad to mail one.

Letherman's

Dept. VG

Canton 2, Ohio

MARKETS...

TRENDS AND FORECASTS

Special Report

AMERICAN VEGETABLE GROWER, NOVEMBER, 1960

1961 WINTER POTATO CROP TO BE SLIGHTLY LESS.

Florida and California growers report intentions to plant a total of 20,200 acres, or 2% below last year and 30% below average.

CONSUMPTION OF BOTH FRESH AND FROZEN STRAWBERRIES LIKELY TO INCREASE. The results of a recent Michigan State University study indicate that as family incomes rise purchases of strawberries tend to increase. Other factors influencing more purchases were larger-sized families, and employment of the housewife outside the home.

LATE-PRODUCING STATES TO STORE MORE POTATOES AND STORE THEM LONGER. Construction of more storage houses has increased capacity for Idaho, Maine, and the Red River Valley. Increased use of sprout inhibitors, maleic hydrazide, and recently approved CIPC, will provide for virtual year-round marketing of potatoes grown in these areas.

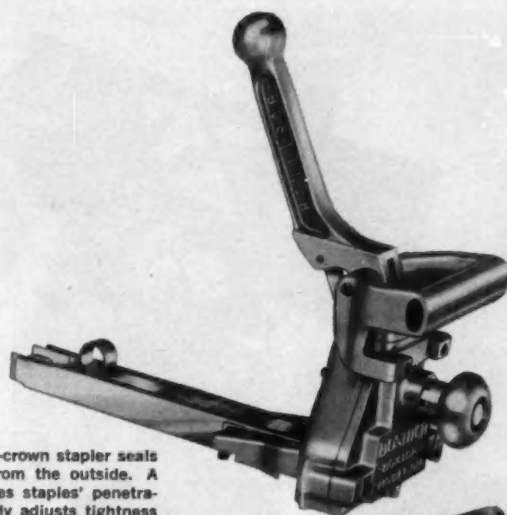
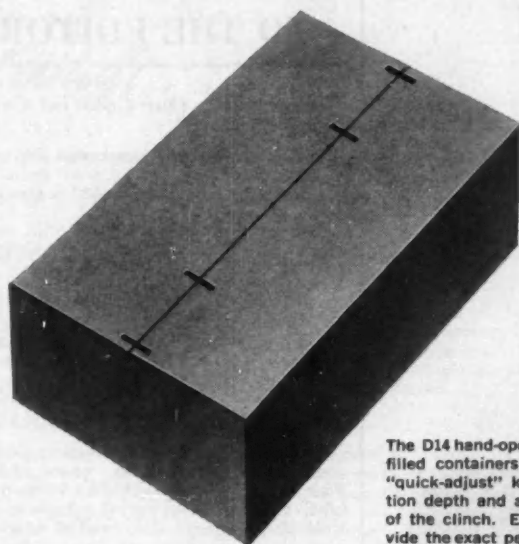
ONION OUTLOOK AND SITUATION. Present harvest-time prices for the late crop are not good. Production is down 3% from last year's bumper crop but apparently not enough. Quality is good. The National Onion Association is pleading for more orderly marketing. There is some talk about a national marketing order or agreement.

HURRICANE LOSSES CUT DEEP INTO FLORIDA VEGETABLE PRODUCTION. Dade County reports an 85% loss of tomatoes and almost total loss of acreage of other vegetables. Replanting is now in progress.

LESS THAN \$1 MILLION WAS SPENT ON ADVERTISING FRESH POTATOES LAST YEAR. In contrast \$7½ million went for advertising instant mashed potatoes alone and a whopping \$14 million used to encourage sales of all processed potato products. This "pressure" alone will help put more and more potatoes into processed forms in the future.

WHY DO SOME AREAS BECOME LEADERS IN VEGETABLE PRODUCTION? A recent Texas experiment station study lists the following things as most important: 1) nearness to major markets; 2) time of harvesting and marketing compared to competing areas; 3) suitable soil type, fertility, temperature, rainfall, and availability of irrigation water; and 4) availability of labor when needed for production and harvesting.

THE CHANGING RETAIL MARKET FOR VEGETABLES. A recent AMS study indicates that direct buying by chains is on the increase but will probably be limited to about 50 to 60% of the total market volume. "Orderly marketing" will become more important in the future since it will be more difficult to find outlets for off-grade and temporary surpluses. You can expect to see more "organizations" of producers, particularly on the marketing end of their business.



The D14 hand-operated wide-crown stapler seals filled containers entirely from the outside. A "quick-adjust" knob changes staples' penetration depth and automatically adjusts tightness of the clinch. Eight clincher adjustments provide the exact penetration to give you maximum strength of closure and protection of contents.



FOUR CAN DO THE WORK OF 12

when you use Bostitch wide-crown staples

Time and labor savings are assured, plus a possible reduction in material costs

Spaced up to five inches apart, Bostitch wide-crown staples meet over-land shipping requirements.

On an average size box, three or four do the work that usually requires 12 or 16. This means fewer staples, faster sealing and lower costs.

For further information, see your Bostitch Economy Man. Just look up "Bostitch" in your phone book or write for the folder, "The Wide Crown Staple."



A. Maximum penetration with D14 top stapler models. Staple is driven completely through two thicknesses of "A," "B," or "C" flute boards and clinched on underside.



B. Staple clinched "blind" when desired in two thicknesses of "A," "B," or "C" flute board.

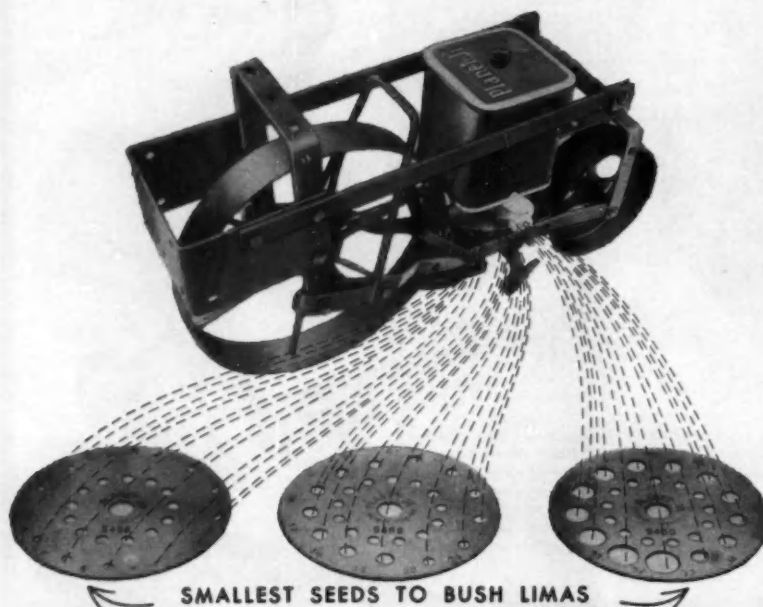


C. Staple as driven by box bottomer using solid clincher.

Fasten it better and faster with

BOSTITCH

STAPLERS AND STAPLES



Planet Jr.[®] SEEDER UNIT NO. 9192X

... handles over 39 different size seeds
... with accuracy!

This Planet Jr. Seeder Unit is furnished with three seed plates ... giving a selection of 39 hole sizes for planting any size seed from the smallest vegetables to bush limas. It row-plants accurately a prescribed number of seeds per foot. The No. 9192X, like all Planet Jr. seeder units, is easy to clean, easy to fill, and is built for quick changing of seeding plates. It is especially adaptable for use with most general purpose tractors. There is a complete line of Planet Jr. "packaged" seeding attachments available.

Here are the extras available for Planet Jr. No. 9192X

PRESS WHEELS—a wide number of press wheels to choose from—flat, concave, split, open-center and rubber-tired.

STANDARD—there is a wide variety available for mounting 9192X seeder to your tool bar—either front, rear or side-offset.

DRIVE WHEELS—choose from flat, flanged and furrow-flanged drive wheels—whichever suits your soil conditions best.

OPENING FLOWS—a large selection with planting range from 0 to 3½ inches in depth—from 1 to 6 inches in width of furrow.

... finest in the field
for over 85 years



WRITE FOR DETAILS TODAY!

S. L. ALLEN & CO., Inc.
3419 N. 5th Street, Phila. 40, Pa.

Please send me complete details on Planet Jr. 9192X Seeder Unit

Name.....
Address.....
City.....Zone.....State.....

LETTERS TO THE EDITOR

Readers Like Our Colorful Cover

Dear Editor:

We were quite impressed with the cover of the September issue of your magazine. This is one of the most colorful you have had.

The printing quality of both your publications has improved 100% over the past year. Keep up the good work.
New York, N.Y. Wilbur F. July

Dear Editor:

Your September cover is one of the most attractive I have ever seen. Is it possible to get an extra copy of it?
Starke, Fla. Mrs. Desta Dyal

Dear Editor:

As a horticulturist, I was especially pleased with the cover color photograph on your September issue. I'd like to have another copy of this issue, if you have one.
Columbus, Ohio Dr. Fred O. Hartman

Dear Editor:

Your September cover is very good looking. Just right for the harvest season. Will we be seeing more four-color covers on AMERICAN VEGETABLE GROWER?
Lexington, Ky. Kenneth J. Bernard

We never expected the response to the four-color cover would be so enthusiastic. There are two more scheduled, in January and March, 1961.—Ed.

On Educating The Consumer

Dear Editor:

I am certain you will agree that the cranberry scandal last year hurt growers everywhere. Many housewives still wonder if fresh produce is safe to eat.

Articles like "Time To Pull Up Our Socks" by the editor of the Cortland (N.Y.) Standard, which I am enclosing, will do much to educate the public. Certainly if we are to get rid of the effects of last year's cranberry story, we must get help from local newspapers. Enlightened men like the editor of the Cortland Standard are doing the vegetable grower a real service. Visits by produce growers to their local newspapers and stories like this one are real result-getters in educating the buying public.
Cortland, N.Y. Charles Monahan

This excellent and timely editorial discusses a subject of such great importance that we wanted to give it the best possible presentation in AMERICAN VEGETABLE GROWER. You will find "Time To Pull Up Our Socks" on the editorial page of this issue. Read it, clip it, save it!—Ed.

AAMA NAMES TYLER

WAYNE TYLER, of Delmar, N. Y., has been named field director of American Agricultural Marketing Association, newly formed subsidiary of American Farm Bureau Federation. Tyler formerly served AFBF as organizational director of Iowa Farm Bureau and field representative in the Northeast region.

AMERICAN VEGETABLE GROWER

Why? . . .

. . . are more vegetable growers each year using Jiffy-Pots to start plants?

Because their crops benefit three ways:

INCREASED TOTAL YIELD

Shock-free transplanting of Jiffy-Potted plants eliminates costly skips and weak plants that never fully develop in size and production. Jiffy-Pots produce stronger, healthier plants, which will bear earlier, heavier and over a longer period.

EARLIER YIELDS

Comparative tests have shown that vegetables started in Jiffy-Pots are ready for market **10-14 days earlier** than vegetables started at the same time without the benefit of this peat pot. This earlier maturity comes about in two ways: plants can be started earlier under protection from weather—shock-free transplanting means that costly delays from set-back are eliminated when plants are set in the field.

LESS HAZARDS

Since Jiffy-Potted plants can be planted later . . . and mature earlier . . . plants are in the field for a shorter time and are less subject to field hazards.

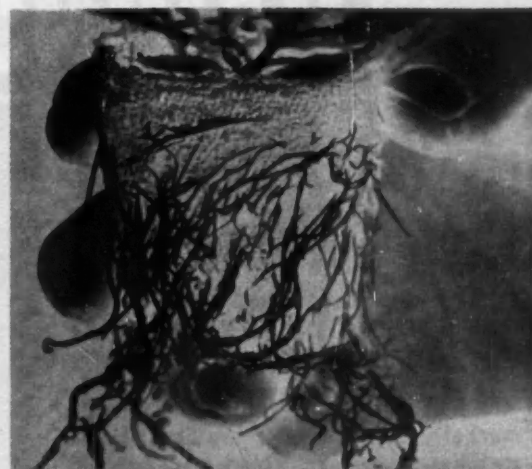
BUY GENUINE JIFFY-POTS

MADE OF PEAT

From These Leading Distributors

Place Your Jiffy-Pot Order Today—Available from *These Leading Distributors

ALASKA FARM HOME CHEM.—3203 Spenard Road, Anchorage, Alaska
ALEXANDRIA SEED CO., INC.—2022 Third, Alexandria, La.
AMERICAN BULB CO.—1335 W. Randolph St., Chicago 7,
ARCHIAS SEED STORE CORP.—106 E. Main St., Box 109, Sedalla, Mo.
ARIZONA FERTILIZERS, INC.—Box 2191, Phoenix, Ariz.
ASGROW SEED CO.—Milford, Conn.; Vineland, N. J.; Elizabeth City, N. C.; Charleston, S. C.
GEO. J. BALL, INC.—West Chicago, Ill.
BERKERY, INC.—66 Reade St., New York 7, N. Y.
BERRY SEED CO.—Clarinda, Iowa
BURDICK'S SEED HOUSE—113-115 N. Water St., Saginaw, Mich.
W. ATLEE BURPEE CO.—Hunting Park Ave. & 18th St., Philadelphia 32, Pa.; Clinton, Iowa; Riverside, Calif.
CAPITOL SEED STORE—P.O. Box 1349, Main P.O. Columbus 16, Ohio
CERAMO CO., INC.—P.O. Box 84, Jackson, Mo.
CLEVELAND POTTERY CO.—5628 Brecksville Road, Cleveland 31, Ohio
COASTAL PAPER & SUPPLY CO.—156 W. 28th St., New York 1, N.Y.
FERRY MORSE SEED CO.—Mountain View, Calif.; Los Angeles, Calif.; Tampa, Fla.; Buffalo, N. Y.; Memphis, Tenn.; Harlingen, Tex.; Racine, Wis.
FRIEDL ELYERSON POTTERY CO.—New Brighton, Pa.
HENRY FIELD SEED & NURSERY—Shenandoah, Iowa
RAYMOND A. FLECK, INC.—Street Road, Route 132, Southampton, Pa.
E. C. GEIGER—North Wales, Pa.
H. G. GERMAN—Box N, Smethport, Pa.
FRED C. GLOECKNER & CO.—15 E. 26th St., New York 10.
GEORGE K. GROFF—746 New Holland, Lancaster, Pa.
I. G. HARMAN & SON—1800 19th St. N.E., Canton 4, Ohio
JOSEPH HARRIS CO.—Moreton Farm, Rochester, N. Y.



JIFFY-POTS—made of long fibered Norwegian peat gives a perfect environment to development of plant roots. Roots easily penetrate the pot wall—you can plant "pot and all"—planting goes much faster than by other methods.

PRICES

Mod. No.	Top Diam. and shape	Depth of pot	Ship. Wt. per Case	Packed per Case	Price per Case	EASTERN STATES*		
						Price Per 1000 Pots	1-9 Cases	10-24 Cases
115	1 1/2-in. Round	1 3/4"	17 lbs.	3000	\$17.10	\$ 5.70	\$ 5.30	\$ 4.90
122	2 1/4-in. Round	2 1/4"	37 lbs.	3000	22.50	7.50	7.00	6.50
222	2 1/4-in. Square	2 1/4"	37 lbs.	2500	20.25	8.10	7.60	7.00
130	3-in. Round	3"	37 lbs.	1500	19.95	13.30	12.30	11.30
230	3-in. Square	3"	40 lbs.	1000	15.50	15.50	14.50	13.50
330	3-in. Shorty	2 1/2"	37 lbs.	1500	19.50	13.00	12.00	11.00
335	3 1/2-in. Shorty	3"	40 lbs.	1000	17.75	17.75	16.50	15.25
140	4-in. Round	4"	35 lbs.	500	14.75	29.50	27.50	25.50
240	4-in. Square	4"	45 lbs.	500	15.00	30.00	28.00	26.00
425	2 1/2-in. Rosepots	3 1/8"	35 lbs.	2000	20.00	10.00	9.25	8.50
517	1 3/4-in. Jiffy-Strips	2"	35 lbs.	3600	24.84	6.90	6.40	5.90

*WESTERN STATES: Add 5% to above prices on shipments into Ariz., Alaska, Calif., Hawaii, Idaho, Nev., Oreg., Utah, and Wash. Eastern prices apply to all other states.
 **Additional quantity discounts from 25 case prices. Orders of: \$1500, 2%; \$3000, 3%; \$6000, 5%.
 Various sizes may be combined to obtain quantity prices. SOLD IN CASE LOTS ONLY. Prices prepaid in lots of 150 lbs. or more anywhere in the Continental United States, excluding Alaska and Hawaii.

HAWAIIAN FLOWER EXCHANGE—1431 Nuuanu Ave., Honolulu, Hawaii
ALEC HENDERSON—1313 W. Randolph St., Chicago 7.
A. H. HUMMERT SEED—2746 Chateau, St. Louis 3, Mo.
JEDNAK FLORAL CO.—P.O. Box 1917, Columbus 16, Ohio
KINSMAN, INC.—510 Fourth Ave., N.E., Austin, Minn.
E. A. MARTIN SEED CO.—5126 West Beaver St., Jacksonville, Fla.
J. CHAS. McCULLOUGH SEED CO.—Box 143, Cincinnati, Ohio.
McHUTCHINSON & CO.—Ridgefield, N. J.; Portland, Ore.
MEYER SEED CO.—1 E. Lombard St., Baltimore 2, Md.
MICHAEL-LEONARD CO.—1701 Rockingham Rd., Davenport, Iowa
MISSOURI SEED CO.—935 N. Broadway, St. Louis 2, Mo.
NEUMAN SEED CO.—202 E. Main, El Centro, Calif.
ROY A. NICHOLSON, LTD.—Burlington, Ontario, Canada
W. H. NIEMANN & CO.—55 Paramus Rd., Paramus, N. J.
NORTHROP-KING CO.—1500 Jackson St., Minneapolis 13, Minn.
OLIVER & THOMPSON—520 S. E. Taylor, Portland, Ore.
GEO. W. PARK SEED CO.—Greenwood, S. C.
PEARSON-FERGUSON CHEM. CO.—1400 Union Ave., Kansas City 1, Mo.
RISPESS SEED CO.—3332 Ridge Road, Lansing, Ill.
ROSS SEED CO.—728 E. 13th, Wichita, Kan.
AL SAFFER—130 W. 28th St., New York 1, N. Y.
SCHILLS SEED HOUSE—10th & Market Sts., Harrisburg, Pa.
S. S. SKIDELSKY & CO.—144 W. 27th St., New York 1.
SLATER SUPPLY CO.—Allen Bldg., Farmingdale, N. Y.
SOMERSET ROSE NURSERY, INC.—Box 608, New Brunswick, N. J.
SYRACUSE POTTERY, INC.—Box 925, Syracuse, N. Y.
GEO. TAIT & SONS, INC.—P.O. Box 5545, 900 Tidewater Dr., Norfolk 4, Va.
TURF & GARDEN SUPPLY—P.O. Box 4626, Norfolk, Va.
WESTERN SEED CO.—1421-25 15th St., Denver 2, Colo.
WIEGROW PRODUCTS CO.—59 S. Terrace Ave., Mt. Vernon, N. Y.
VAUGHANS SEED CO.—601-609 W. Jackson Blvd., Chicago 6, Ill.; 85 White St., New York 13, N. Y.
C. M. VOLKMAN & CO.—55 Union St., San Francisco, 11.

*Sold only through above distributors—order directly from them.



JIFFY-POT COMPANY OF AMERICA

P. O. BOX 388
 WEST CHICAGO, ILL.

HARRIS SEEDS

Are YOU Selling The Best . . . At The Best Prices?

You can't expect to get your full share of the market unless you offer the finest modern varieties. These exclusive Harris hybrids are recognized by the most successful growers as the best of their type.

NORTHERN BELLE

Growers who tried our Northern Belle this season are already calling on us for much larger quantities for next year. Maturing in Carmelcross season, it produces amazing crops of handsome, 7½-8 in. ears, filled evenly to the tips with narrow, tight-packed kernels. Ears are glossy and appetizing in appearance and of fine quality. Erect, stiff-stalked plants with few tillers, resistant to lodging. Highly recommended.



HARRIS' NORTHERN BELLE

GOLD CUP

This recent Harris introduction has quickly won a commanding position in many sections. Growers praise its tremendous yields, fine appearance and choice quality and it has proved to be just the type that buyers are looking for. It ripens in early midseason and produces amazing crops of trim, well-filled ears with the small bright kernels that present-day markets demand.



Harris'
GOLD CUP

REMINDER...

TO BEDDING PLANT GROWERS

Your customers will be asking for the gorgeous Harris hybrid petunias. They are illustrated in full color in our free catalog.

IT'S FREE!

Send today for Harris' "Market Gardeners and Florists' Wholesale Catalog." Get full details on these and many other outstanding Harris introductions.

JOSEPH HARRIS CO., INC. • 76 Moreton Farm, Rochester 11, New York

TOMATOES . . the year-around . . for TEXAS GROWERS

**Field production is being supplemented by
tomatoes grown in plastic greenhouses.
Result: a 12-month growing schedule**

By H. C. MOHR

Texas Agricultural & Mechanical College, College Station

PRODUCTION of tomatoes in greenhouses during the winter has extended to the southern border of the United States. Texas, one of the earliest areas of the country to ship fresh market field tomatoes, is extending its tomato production sea-



Covering the 80x200-foot tomato field house of Colorado Valley Market Garden Farms, Austin. Tomato plants, having been planted several months prior to placing film, are already well developed.

son completely around the calendar through the use of plastic film greenhouses.

Texans have several very important advantages in this new industry. The bright sunshine, which prevails throughout the winter months, makes possible exceptionally high yields and superb quality. The relatively moderate temperatures during most of this period of the year makes for lower fuel bills.

Excellent markets are available in Houston, San Antonio, Dallas, Ft Worth, Austin, and other large cities



Various plastic films are tested for longevity and other characteristics on panel-type experimental house at Texas Experiment Station.

of the state. Growers have received 25 to 40 cents per pound, with enthusiastic reception of their product to date.

The Texas plastic greenhouse tomato deal is just getting started. First attempts at commercial production were made about three years ago. Growers quickly discovered that there were many problems yet to be solved.

Amon Dacus, Rio Farms, Monte Alto, has been concerned with trying to find a suitable variety. He found the Tuckcross hybrids to be better

than other varieties and hybrids which he tried. These hybrids are well liked by F. C. Maseles, Colorado Valley Market Garden Farms, Austin.

A. Wm. Schild, Waller, and George Davis, College Station, liked Manalucie last year—although yields of this variety were compara-

tively low. Wm. Knowles and Walter Sussdorf, Palestine, used the Michigan-Ohio Hybrid in their first venture in 1958-59.

Most of the growers have had several different varieties in their houses each year in an effort to discover a better one. They have found that resistance to leaf mold is very important, since this foliage disease is quite prevalent and the high humidity in the plastic film houses favors its development.

Schild considers research to design houses with more effective control of humidity an important need of the future, and most of the other growers agree with this opinion.

The widely publicized work of Dr. E. M. Emmert, University of Kentucky, in developing plastic film greenhouses for use in vegetable production was given as the principal reason for going into greenhouse tomato production by most of these Texas growers.

Sussdorf made several trips to Kentucky to discuss greenhouse construction with Dr. Emmert before he and Knowles erected their house, a

(Continued on page 23)

We Analyze "CHAIN" BUYING PRACTICES

PART 1-What motivates the "chain" produce buyer?

By JOHN CAREW

FOR six weeks I lived with the men who make the fruit and vegetable buying decisions for the third largest food chain in the nation; among them:

—A desk buyer who purchases 8500 to 9000 cars of potatoes annually;

—A pair of division buyers whose fruit and vegetable purchases will exceed \$8 million in 1960;

—The manager of a single super-market grossing \$3 million in sales;

—A corps of remarkably keen vice-presidents dedicated to having their customers "live better for less"—at a profit to the firm.

The company was Kroger and the occasion a Fellowship in Business from the Foundation for Economic Education.

My objective was to study the decision-making behind the procurement, handling, and merchandising

Chain store produce buyers are the most influential men in the fruit and vegetable industry. Their buying decisions—where, when, from whom, and at what price—affect the economic lives of all growers.

Here is a unique report—the "inside" story of how produce buying decisions are made—written by a scientist who knows both sides of the business. Dr. Carew is professor of horticulture at Michigan State University, East Lansing, and is an associate editor of **AMERICAN VEGETABLE GROWER**.

of fruits, vegetables, and garden items. And to learn what was planned for the future.

Included was a week with Wesco buyers in Florida, two weeks in the Kroger general office in Cincinnati, Ohio, and prolonged visits to the divisions in Detroit, Grand Rapids, Chicago, and Cleveland.

From President Joseph B. Hall to Head Produce Clerk Al Latson all my questions, as pointed or naive as

they were, were willingly answered.

My experience was unique. What I learned may be "old stuff" to professional produce buyers. But I have a hunch it will be as revealing to many commercial fruit and vegetable growers as it was to me.

I was not brainwashed. Chains are far from perfect in their produce buying and merchandising procedures. But I now understand their point of view. It is a demanding, profit-making position, born of vigorous competition and supported by a bigness far greater than that of their produce suppliers. Because they are run by keen businessmen, they will continue to exercise great influence on the fresh fruit and vegetable market.

Daily Produce Sales Over \$500,000—Kroger's sales statistics alone are staggering; especially to someone who still regards a farm with a \$100,000 income as big. Gross sales in 1959 were \$1.9 billion from 1407 stores. (The two largest food chains, A&P and Safeway, had total sales in 1959 of \$5 and \$2.4 billion, each larger than the well-known industrial giants, Du Pont, Standard Oil of Indiana, Bethlehem Steel, and Westinghouse; but yet the top three food chains do only 18% of the total food business.) The average Kroger store has an annual business over \$1,350,000. Net profit for the entire firm was 1.3% of sales after taxes for 1959.

Produce sales, including fresh fruits, vegetables, potatoes, and garden items account for approximately



Produce buyers are not the complete rulers of their kingdom. Mrs. Consumer is still BOSS.



Gross sales of 1407 stores of Kroger Company totaled \$1.9 billion in 1959. Produce sales, including vegetables, potatoes, fresh fruits, and garden items accounted for \$160 million.

8½% of total—or \$160 million. For the average store this would be nearly \$114,000 annually; for the company, over \$500,000 each shopping day. (You can make a rough guess of annual sales in any local supermarket by multiplying the number of check-out lanes by \$400,000.)

Who Are the Produce Decision-Makers?—In the decentralized Kroger Company, the division buyer and the division sales manager or merchandiser with whom he works, are the key decision-makers in produce. They decide the commodities to be promoted, the retail price, and, when a choice is possible, the area of supply and variety, size, and container specifications.

Although Detroit, the largest division, has 101 stores, other divisions have from 30 to 90 stores. Since produce purchases by individual stores are generally restricted to a few local soft fruits and vegetables, division buyers have the major responsibility of procuring the fresh fruits and vegetables ordered by the head produce clerks in the stores.

I started out seeking the policies governing fruit and vegetable buying. But I soon learned that buyers are individuals operating under a set of

widely accepted merchandising principles and strongly influenced by their personal likes and dislikes.

Mrs. Consumer Has a Mind of Her Own—Produce buyers are not complete rulers of their kingdom. Mrs. Consumer, by her acceptance or rejection of his offerings, is still boss. He must constantly remember that:

—She demands quality; *her* kind of eye-appeal quality. Not what growers or buyers happen to think looks or tastes better.

—She *will* have convenience; foods free of soil, insects, or blemishes.

—She recognizes a bargain. She is loyal to a store only if it is to her advantage; attractive prices will lure her away.

—Her produce preferences vary with age, income, nationality, and geographical area.

—She does 70% of her shopping in the 48 hours between Thursday and Saturday noon.

On the other hand, Mrs. Consumer is a piece of clay in the hands of a clever merchandiser. He can increase her produce purchases, or get her to eat more bananas and apples, by types of displays and their location in the store.

The Lettuce Patch, conceived by the Kroger Company, markedly boosted sales of escarole, endive, Bibb, Boston, and leaf lettuce. It offered Mrs. Consumer the opportunity of being creative in her salad engineering.

Store Orders Must Be Filled—Let's see how the division buyer and the sales manager carry out their responsibilities for providing stores with a continuous supply of quality produce at competitive prices.

Around 40 fruit and vegetable items are involved, depending upon season of the year. Orders from the individual stores for most of these are based on a pattern of sales. *At normal prices* each head produce clerk knows within reasonable limits how many potatoes, celery, oranges, and apples he will move.

But constant "normal" prices won't do. The success of a food chain depends upon the merchandising ability of its personnel—their catering to Mrs. Consumer's constant search for a value or bargain, for something special.

Promotions Are Planned in Advance—In addition to filling store orders, division men plan sales promotions. The items they select must have customer appeal. Greenhouse tomatoes at 20 cents per pound would be a recognized value to most homemakers; red beets at 2 cents a bunch could hardly be expected to build store traffic.

Promotion items obviously must be in fairly heavy supply at a low cost. A May watermelon sale at 10 cents per pound would not be an attractive feature. But the same item in early July at 3 cents might be highly successful.

Promotions are planned at least 10 days in advance; fairly accurate estimates of supply and price are necessary. A daily teletype broadcast of this information from all major production areas of the country is received daily from Wesco, the central procurement organization within Kroger. During the home-grown season this is supplemented by the division buyers' own market surveys.

Here the sales manager's individuality emerges. With identical information supplied to both offices, the Detroit division decided to feature Washington Bing cherries and the Grand Rapids division promoted Virginia early potatoes in the same week. In line with Kroger's policy of decentralization each division sales manager (merchandiser) was on his own. Their ads were as dissimilar as two different chains.

In another division the merchandiser is "plum" happy. Because he likes to sell plums—not because he

(Continued on page 27)

The Best Today . . . Will Be Better Tomorrow

Leaders in the vegetable industry will tell growers at VGAA's 52nd annual convention why tomorrow's varieties, cultural practices, and marketing will be better than today's

"THE Best Today Will Be Better Tomorrow" is the theme of the 52nd annual convention of Vegetable Growers Association of America to be held at the Auditorium-Arena, Milwaukee, Wis., November 28 to December 1.

One of the featured speakers will be William Tolbert, farm labor advisor for Ventura County Citrus Growers Association, Santa Paula, Calif. Tolbert is particularly well qualified to speak on farm labor problems since he has been in the middle of the recent labor disputes in California between producers and the Agricultural Workers Organizing Committee of AFL-CIO.

Perhaps the most intriguing subject to be discussed at the convention is seaweed. Dr. T. L. Senn, head of department of horticulture, Clemson Agricultural College, will report on the effects of seaweed on the development and composition of vegetables and special crops.

Chairman Charles Kreuziger and co-chairman Harold Gatzke have scheduled four days of interesting speeches and events. For more details, check the program presented below, or write Robert M. Frederick, Executive Sec'y, VGAA, 528 Mills Bldg., 17th & Pennsylvania Ave., N.W., Washington 6, D.C.

MONDAY MORNING—NOVEMBER 28

8:00 VGAA Board of Directors—Hotel Schroeder.
9:00 Registration—4th Floor Foyer, Hotel Schroeder.

TUESDAY MORNING—NOVEMBER 29

General Truck Crops & Processing Crops

Juneau Hall, Auditorium—
Dr. John A. Schoenemann, Vegetable Specialist,
University of Wisconsin, presiding
9:00 Vegetable Weed Control—Dr. L. G. Holm,
Dept. of Horticulture, University of Wisconsin,
Madison.
10:00 Designing Vegetable Production Equipment—
B. C. Koepfer, Koepfer Engineering Co., Mil-
waukee.
11:00 Improving Vegetable Crop Varieties—Dr. Stur-
t Smith, Research Director, Seed Research
Specialists, Inc., Ames, Iowa.

Greenhouse Section

Kilbourn Hall, Auditorium—Roy H. Burghart,
President, National Association Greenhouse
Vegetable Growers, presiding
9:00 Effect of Seaweed on the Development and
Composition of Various Vegetable and Special
Crops—Dr. T. L. Senn, Horticulturist, Clemson
Agricultural College, Clemson, S.C.



Schoenemann



Kreuziger



Frederick



Towson



Tolbert

10:00 Observations of the Modern European Green-
house Vegetable Industry—Dr. S. H. Wittwer,
Michigan State University, East Lansing.

TUESDAY AFTERNOON—NOVEMBER 29

General Session

Kilbourn Hall—J. D. Swan, Jr., Past President,
VGAA, presiding
1:30 Welcome—Mayor of Milwaukee.
1:45 Keynote Address—Dr. Donald N. McDowell,
Director, Wisconsin State Department of Ag-
riculture.
2:30 Foreign Vegetable Competition—A. Clinton
Cook, Foreign Agricultural Service, USDA,
Washington, D.C.
3:30 VGAA Business Session
6:30 Supply Men's Buffet and Entertainment—Em-
pire Room, Hotel Schroeder.

WEDNESDAY MORNING—NOVEMBER 30

General Truck Crops & Processing Crops

Kilbourn Hall—Charles M. Kreuziger,
1st Vice President, VGAA, presiding
9:00 Agricultural Water Legislation—Dr. R. J. Penn,
Dept. of Agricultural Economics, University of
Wisconsin.
10:00 Vegetable Crop Disease Research—Dr. J. C.
Walker, Dept. of Plant Pathology, University
of Wisconsin.
11:00 Nematode Problems with Vegetable Crops—

EXHIBITORS AT VGAA CONVENTION IN MILWAUKEE

November 28—December 1, 1960

S. L. Allen & Company, Inc., Philadelphia, Pa.
Asgrow Seed Company, New Haven, Conn.
Geo. J. Ball, Inc., West Chicago, Ill.
John Bean Division, Lansing, Mich.
California Spray-Chemical Corp., Richmond,
Calif.
Eclipse Company, Inc., Glenside, Pa.
Florists Mutual Insurance Company, Edwards-
ville, Ill.
Fruit & Produce Packing Co., Indianapolis,
Ind.
Geigy Agricultural Chemicals, Ardsley, N.Y.
Joseph Harris Company, Inc., Rochester, N.Y.
International Harvester Company, Chicago, Ill.
Lockwood Grader Corp., Gering, Neb.
Morton Chemical Company, Chicago, Ill.
The F. E. Myers & Bro. Company, Ashland,
Ohio
Olin Mathieson Chemical Corp., Little Rock,
Ark.
Packaging Corporation of America, Rittman,
Ohio
Powell Manufacturing Company, Inc., Wilson,
N.C.
Sea-Born, Div. of Skod, Greenwich, Conn.
Troyer Manufacturing Company, Smithville,
Ohio
Vandermolen Export Company, North Caldwell,
N.J.
Vaughan's Seed Company, Chicago, Ill.
Visking Company, Chicago, Ill.
Wisconsin State Department of Agriculture,
Madison, Wis.

(More detailed information on exhibits will be
included in December issue.)



Shuman



Mercker



Senn



Wittwer



Burghart

Gerald Thorne, Prof. Plant Pathology, Univer-
sity of Wisconsin.

Greenhouse Section

9:00 Tour of several Milwaukee vegetable green-
houses. Watch National Greenhouse Associa-
tion booth in Exhibit Area for details.

WEDNESDAY AFTERNOON—NOVEMBER 30

General Session

Juneau Hall—A. Lee Towson, Jr.,
Past President, VGAA, presiding
2:00 Our Changing Vegetable Markets—Robert L.
Bernier, Robert L. Bernier Company, Chicago.
2:45 Farm Labor Problems—William Tolbert, Farm
Labor Administrator, Ventura County Citrus
Growers, Calif.
3:30 Safe Use of Pesticides—Dr. John Birdsall, Wis-
consin Alumni Research Foundation, Madison.

THURSDAY MORNING—DECEMBER 1

Potato Section

Juneau Hall—Emil Jorgenson, President,
Wisconsin Potato Growers Association,
presiding
9:00 Soil Management and Nutritional Needs for
Potatoes—Dr. K. C. Berger, Dept. of Soils,
University of Wisconsin.
10:00 Systemic Insecticides for Potato Insect Control
—Dr. R. K. Chapman, Dept. of Entomology,
University of Wisconsin.
11:00 Potato Marketing Problems—A. B. Mercker,
Director, National Potato Council, Washing-
ton, D.C.

Greenhouse Section

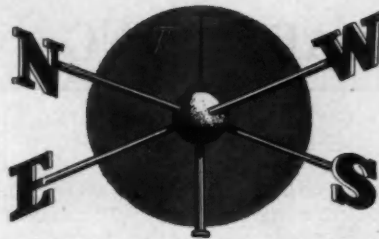
Kilbourn Hall—Roy H. Burghart, President,
National Association Greenhouse Vegeta-
ble Growers, presiding
9:00 Chemical Control of Insects Attacking Green-
house Vegetable Crops and the Problems Aris-
ing Therefrom—Dr. R. B. Niswander, Ohio
State Experiment Station, Wooster.
10:00 A Discussion of Rutenik Gardens Carefully
Correlated Plan of Production and Marketing
—Richard Pretzer, Cleveland, Ohio.
11:00 Annual Business Session

THURSDAY AFTERNOON—DECEMBER 1

General Session

Juneau Hall—George DeVries, President,
VGAA, presiding
2:00 Increasing the Farmers' Bargaining Power—
Charles B. Shuman, President, AFBF, Chicago,
Ill.
3:00 Annual Business Meeting
7:00 Annual Banquet—Ballroom, Hotel Schroeder.

AMERICAN VEGETABLE GROWER



- New York Growers Try Prepackaging for Cauliflower
- Texas Carrots Now Under Marketing Order

Ralph to Head Department of Agriculture

CALIFORNIA—"The efficient producer in agriculture, producing a product demanded by consumers, is entitled to the same rate of return on his investment, his management, and his labor as the efficient producer in any other industry."

To achieve that result is the prime goal of the man who will become California's director of agriculture on January 2, 1961—Dr. James T. Ralph, now deputy director to William E. Warne, who'll leave the California Department of Agriculture on that date to become state director of water resources.

Dr. Ralph is a farm-bred agricultural economist, having grown up on a fruit and livestock farm near Nashville, Tenn. His experience in the field of agriculture covers teaching, research, administration, and journalism in marketing and policy.

The selection of Dr. Ralph indicates an increased tempo of action in self-help marketing programs for growers in the Golden state plus continued emphasis on encouragement of bargaining associations to improve farm income. As deputy director, Ralph has militantly advocated the development of bargaining strength among growers not only through state and national commodity organizations but through techniques that would adjust farm supplies to consumer demand.

Growers Adopt West Coast System

NEW YORK—Cauliflower growers in the Genesee Valley are sending their crop to market in a new form—trimmed and prepackaged in a cellophane overwrap. Genesee Valley Regional Market Authority and its sales agency, Long Island Cauliflower Distributors, Inc., initiated the prepackaged shipments.

Trimming heads before shipment reduces transportation costs. Nearly twice as many heads can be shipped in each truckload. Prepackaging makes in-store handling of cauliflower easier and adds consumer appeal.

A modern packing line has been installed by the Genesee authority at Hilton. A hydrocooler is used to reduce the field heat of the cauliflower to 40° F. The heads are then wrapped and heat-sealed in the cellophane overwrap.

Sweetpotato Growers Organize

VIRGINIA—Sweetpotato growers in Princess Anne County are forming a marketing association. The association plans to handle the entire crop for all members. The operation will consist of assembling, washing, waxing, grading, and selling the sweetpotatoes.

Application has been made to the State Corporation Commission for a charter. Instrumental in the formation of the association were E. R. Cockrell, Princess Anne county agent; Dr. Homer J. Preston, chief,

Fruit and Vegetable Section, AMS; and Charles Jones, division of markets, Virginia Department of Agriculture.

Marketing Order for Carrots

TEXAS—Growers in 51 counties in south Texas have approved a federal marketing order for carrots recommended by USDA. The marketing order authorizes the regulation of carrot shipments by grade, size, quality, packs, and containers. The order will be administered by a committee—the South Texas Carrot Committee—composed of 10 local carrot growers and five handlers.

Ben Levin Heads PPA

FLORIDA—Ben Levin, of M. Levin & Co., Philadelphia, Pa., was elected president of Produce Packaging Association at their 10th annual convention and exposition

held recently at Miami Beach. He succeeds Russell La Mantia, Aunt Mid Co., Chicago.

Other officers elected were: Gay Battaglia, Krisp-Pak, Norfolk, Va., first vice-president; J. William O'Donnell, Suffolk Farms Packing Co., Chelsea, Mass., second vice-president; and Mrs. Marie Ebbecke, The Ebbecke's Inc., Toughkenamon, Pa., treasurer; Robert L. Carey, Produce Packaging Association, Newark, Del., continues as executive secretary.



Carey

In an address before the convention, John L. Ginn, Transportation & Facilities Research Division, USDA, gave the results of recent prepackaging studies on green beans and sweet corn shipped from Florida to northern markets.

In the tests, green beans packaged 18 ounces per bag in a 350- to 450-gauge polymer-coated cellophane gusset bag and packed in wirebound crates and vacuum-cooled to 40° F. arrived at markets in New England in excellent condition. The bags were ventilated with 20 holes, 1/4 inch in diameter, to allow respiration.

Sweet corn arrived in good condition at northern markets when the following procedure was used: Quality corn was cut to 8-inch lengths and about 25% of the husks removed. A 1/4- to 1/2-inch wide strip of husks was removed to show consumers the condition and quality of the corn. The corn was then washed or moistened by sprinkling and packed 5 ears per tray and overwrapped with shrinkable film. The prepackaged corn was packed in wirebound or fiberboard master containers and vacuum cooled to 38 to 40° F.

It was found that fiberboard containers could be used successfully if the corn is shipped under standard refrigeration. However, if top ice is needed, the wirebound crates must be used.

New High in Processing Tomato Yields

NEW JERSEY—The processing tomato crop in the Garden State is expected to total 228,200 tons, compared with 176,400 tons last year. Yield per acre is estimated at 14 tons, a new record for the state.

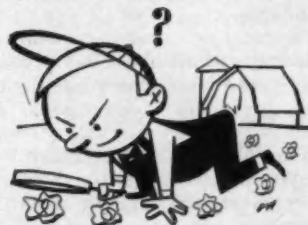
M. N. Edmonston, chief, Bureau of Fruit and Vegetable Service, State Department of Agriculture, reports that at mid-season, the crop was averaging 66% U. S. No. 1, 32% U. S. No. 2, and 2% culls. Excellent growing conditions throughout the entire season resulted in the high quality of the crop.

Edmonston said Hurricane Donna did little damage since the harvest was 90% complete at the time the storm struck.

Roadside Marketing Conference

OHIO—A one-day conference on roadside marketing will be held at Ohio State University, Columbus, November 22. This will be the first of what is expected to be an annual conference for growers who are interested in selling direct to consumers.

YOU be the EXPERT!



THE tomato, pepper, and petunia plants, all 3000 flats, were stunted with brown leaf margins and discolored roots. Despite the dark green color of the foliage, growth was unusually slow. The greenhouse temperature was kept at 65° F. and the grower had fertilized the plants twice since transplanting with ammonium nitrate. The soil had been liberally fertilized before planting and weekly sprays of a fungicide had been applied. The poor growth was uniform throughout the house except for two small areas beneath broken panes of glass. What is your diagnosis?

Answer on page 24

ROADSIDE MARKETING

The Simple Seven

EXACTLY what are the differences between the extraordinarily successful roadside markets and mediocre ones? What management practices spell the difference between profitable markets and the marginal or unprofitable ones? These questions were pondered intensively before formulation of the following checklist of experience-proven recommendations.

The seven simple answers to these all-important questions are the result of an actual field survey. As a family project, we toured on summer



Produce attractively displayed on clean, white shelves adds to your market's "personality."

weekends several hundred miles of highways in four states with extensive roadside facilities. The characteristics of each market were noted along with an appraisal of each market's apparent success in attracting customers and attaining large sales per customer.

Success, measured in profits by the owners, often has little to do with size of the roadside market. It is related much more closely to management practices.

It was no coincidence that the highly successful markets we visited share seven attributes. It was an accident, though, that the seven characteristics all begin with the letter "P." These seven prerequisites to profitable roadside market operation are presented as a guide to help you evaluate your roadside market management practices:

1) **Promotion.** The most common shortcoming of the less successful market is its failure to use adequate approach signs. As a result, it is impossible for the motorist to stop safely after the market is seen. The University of South Carolina has found that patronage increases 52% when approach signs are located

1200 feet from the market (See page 18, September, 1960 AVG).

2) **Paint.** Regardless of how clean a market is, it does not appear clean to the approaching motorist unless it is neatly and freshly painted in a light color.

3) **Parking.** Good parking facilities begin with a gradual slope away from the hard shoulders of the highway. Today's low-slung cars necessitate special concern for a safe entrance. Every highly successful market we visited had graded its parking lot with this problem in mind.

Minimum space requirement for satisfactory parking seems to be about 4 square feet of parking area to each square foot of selling and display space.

4) **Price.** Customer buying habits follow quite a different pattern in markets which post their prices than in markets where no price identification is made. The markets with clear and complete price marking practices inspire customer confidence and achieve the highest sales per customer.

5) **Personality.** Two kinds of "personalities" spell success for a roadside market—a pleasing "personality" for the market itself, and the collective personality of the attendants.

The market operator who can answer questions about his products fluently and intelligently has the best sales personality. Courteous customer service, by market personnel who are alert for opportunities to be of special assistance to their customers, can accomplish what no advertising can do.

Market "personality" is measured in terms of things that make the market unique, things that make it stand out from all the rest. An effective trademark, an unusually interesting assortment of vegetables, a distinctive display technique, an unusual building design, carry-home recipes, or other messages are examples of creative marketing ingenuity that give a market a distinctive "personality."

6) **Packaging.** The relatively unsuccessful markets visited in the course of this survey used dingy, secondhand packaging materials that actually discredited the merchandise.

Only those markets that have good quality products displayed in bright, clean containers, are the ones that realize the maximum volume.

7) **Pest Control.** This seemingly minor consideration is a determining one in the consumer appraisal

of the summer and fall roadside markets. Displays in markets making no effort to control insect pests were completely spoiled by flies, fly specks, bees, fruit flies, sap beetles, and other insects.

This obstacle to sales success can be eliminated partially by putting over-ripe and decayed fruits and vegetables in lidded garbage cans. Supplement this effort with the use of insecticides and you are assured of an insect-free market.

Operators who have conspicuously avoided these shortcomings are making money and finding roadside selling a stimulating and satisfying experience.—Robert L. Bull, *Extension Marketing Service, University of Delaware, Newark.*

MELONS

Subsoiling Watermelon Land

HUGH LIGHTSEY, Brunson, S. C., has produced a carload of marketable watermelons per acre during the last three years. His secret? Subsoiling the watermelon land to provide better water penetration into the subsoil and improve water drainage from the alleys.

Lightsey, who plants 150 acres of watermelons annually, started subsoiling watermelon land in 1957. He first ran the subsoiler every 4 feet throughout the field, but last season changed the practice to subsoiling under the row and in the alleys. The subsoiler is run to a depth of 26 to 28 inches.

Additional benefits of subsoiling have come in the form of reduced labor for preparing high beds. According to Lightsey, high beds are not necessary when proper subsoiling is done. High beds handicap workers and field trucks at harvest-time, he said.

According to Hugh A. Bowers, Clemson extension truck crop specialist, Lightsey also uses the subsoiler to break tree roots at borders of fields. This prevents the watermelon hills on field edges from suffering from lack of moisture due to competition from tree roots.

Thoroughly breaking the hardpan allows for better water and root penetration, Bowers points out. Lightsey's melons have not seriously suffered from lack of moisture during the three-year period.

Lightsey subsoils under the row before applying the fertilizer and preparing the bed. He subsoils in the alley when the melon runners are 6 to 8 inches long.



Watkins



Mohr

AWARD WINNERS

THE American Society for Horticultural Science has named Dr. G. M. Watkins, director of agricultural instruction, and Dr. H. C. Mohr, associate professor of horticulture, both of Texas A. and M. College, as winners of the Leonard H. Vaughan Award, made available through the courtesy of Vaughan's Seed Company, Chicago.

The award, which consists of \$100 and a silver metal, is presented annually to the authors of the outstanding technical article in the area of vegetable crops research.

Dr. Watkins and Dr. Mohr were co-authors of the winning paper entitled *The Nature of Resistance to Southern Blight in Tomato and the Influence of Nutrition on Its Expression*. Southern blight disease, a soil fungus, causes great economic losses to tomato, pepper, sugar beet, and peanut crops.

Dr. Mohr became the first author in the award's 18-year history to receive it twice. He won it previously in 1956 for a research paper dealing with watermelon breeding.

INSPECTION WANTED?

IF you are a prepackager of vegetables, you will want to learn more about the continuous inspection service provided by USDA. In a recent publication entitled "Continuous Inspection for Fresh Fruits and Vegetables," the program and its benefits to both users and consumers is explained fully.

Free copies of Bulletin No. AMS-404 may be obtained by writing Marketing Information Division, Agricultural Marketing Service, U. S. Department of Agriculture, Washington 25, D. C.

GIFT FROM THE SEA

SEAWEED is the newest plant food supplement. Researchers at South Carolina's Clemson College report that seaweed or Kelp meal acted as a tranquilizer on aromatic tobacco plants, resulting in improved leaf quality and high sugar content. Dr. T. L. Senn reports seaweed had similar effects on pimiento peppers, increasing plant height from 10.6 to 18.1 inches on treated plots.

NOVEMBER, 1960

COVERS 300 ACRES A DAY



Unretouched photo shows Myers superior two-way coverage.

Myers Exclusive Air Handling and Two-Way Discharge give

UNMATCHED PROTECTION

Big volume air velocity is delivered directly off fan blades, gives fast, effective coverage over a wide spray swath.

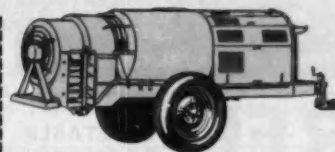
Plants receive complete, protective coverage from top to bottom—even under adverse wind conditions.

This unmatched protection is not available from other sprayers which depend on the added boost of unpredictable down winds or cross winds to carry their spray pattern.

A model designed for every spraying job



Big, powerful 227 covers 300 acres a day.



Fast, economical 225 covers 250 acres a day.

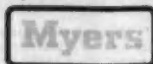


Compact, efficient F29 covers 100 acres a day.



Smaller, thrifty F24 covers 50 acres a day.

Prove to yourself —ask your Myers sprayer dealer for a demonstration of a Myers air or boom sprayer in your own field—or for more information write to:



The F. E. Myers & Bro. Co.
ASHLAND, OHIO KITCHENER, ONTARIO

TESTS SOIL IN SECONDS!



**INCREASE YOUR
CROP YIELD—**
with low-cost portable
KELWAY SOIL TESTER . . .

easy-to-use, easy-to-read. No complicated chemicals, no time consuming tests. This revolutionary, scientific device gives immediate, accurate acidity and moisture readings. Used by farmers, agriculturists, nurserymen. Fully guaranteed! Price—only \$29.50, complete with handy carrying case, pays for itself many times over in one season. Send to:

KEL ENGINEERING & EQUIPMENT CO.

Dept. VG-14 P. O. Box 744
New Brunswick, New Jersey

TERRIFIC SOIL HEATING CABLE BARGAIN

New 98-ft. 330 W. with built-in 70° fix temp. soil thermo. For double ash bed or 36-sq. ft. bench. Get more for larger areas. No. 558T ppd., \$9.95. Money-back guarantee. No C.O.D. or open a/c. Clip \$10.00 bill and your address to this ad. "There is no substitute for bottom heat." Send for free commercial growers bulletin. GRO-QUICK Mfrs., 337 W. Superior St., Chicago 10, Illinois.

Amazing **NEW** **WINPOWER Agrotiller**

Adds years to your soil. Extra dollars to your Profits!



ROTARY TILLAGE BLAZES NEW TRAIL IN FARMING • HEAVY-DUTY TILLAGE TOOL BOOSTS FERTILITY AND YIELDS • REDUCES SOIL EROSION • CUTS CULTIVATION TIME •

Does all these Tough Jobs Well!

- SEED BED PREPARATION
- WEED CONTROL
- PASTURE BREAKING
- LAND RECLAMATION
- TURNING STUBBLE
- PLOWS, DISCS, HARROWS IN ONE OPERATION
- TURNING CORN STALKS AND GREEN ROUGHAGE

WINPOWER Agrotiller

Winpower Mfg. Co., Newton, Iowa

FREE FOR VEGETABLE GROWERS

Use the coupon below for Free monthly subscription to this valuable publication. Crammed with news, and other information. Published by SEED RESEARCH SPECIALISTS INC., foremost breeder of Specialized Vegetable Seeds.

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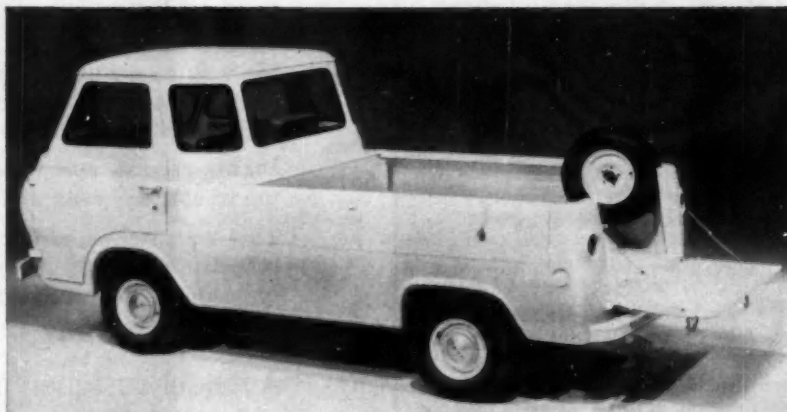
City _____ State _____

Nearest Seed Dealer _____



Dodge Dart half-ton pickup combines passenger car styling and handling ease with traditional truck durability. Dart features 140-hp slanted 6-cylinder engine and is available in wheelbases of 114 and 122 inches. Pickup has maximum gross vehicle weight rating of 5100 pounds.

The New Pickups for 1961



Engine is mounted forward beside driver's seat in Ford Econoline pickup. Flat cargo area in rear has 25-inch loading height. Pickup is powered by 85-hp Falcon engine and has 90-inch wheelbase and over-all length of 168.4 inches. The payload rating is nearly 1700 pounds.



Chevrolet Corvair 95 Rampside pickup features exclusive hinged side-loading ramp. Pickup has rear-mounted 80-hp Corvair air-cooled engine and 95-inch wheelbase. Loading height is 14 inches from ground at side opening, 26.5 inches at rear gate. Payload rating is 1900 pounds. (See page 21 for the new Willys Jeep)

AMERICAN VEGETABLE GROWER



now...use **Thiodan**[®] on all these

Broader registration for Thiodan—powerful new insecticide—gives you effective, economical control of aphids and many other important insects.

Thiodan cleans up heavy aphid infestations where other sprays and dusts fail. It outperforms previously available materials; fewer applications give positive, long-lasting control of a wide range of vegetable insect pests.

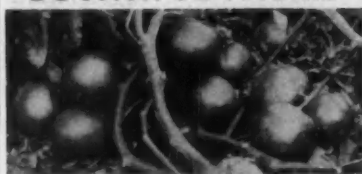
CROP	TO CONTROL	APPLICATION
Beans	Mexican bean beetle	Up to pod formation
Broccoli Cabbage Cauliflower	Cabbage looper, imported cabbage worm, diamond-back moth larvae, cross-striped cabbage worm	Up to formation of edible parts
Cucumbers, Melons, Squash	Aphids	Up to 14 days prior to harvest
Eggplants, Peppers	Aphids	Up to 7 days prior to harvest
Potatoes	Flea beetle, Colorado potato beetle, leafhoppers, aphids, southern armyworm, green stink bug, potato tuberworm, leaf-footed plant bug	Up to harvest
Tomatoes	Aphids, whitefly, Colorado potato beetle, flea beetle, green stink bug	Up to 7 days prior to harvest

Thiodan is a registered trade-mark of Farbwerke-Hoechst A.G.

Thiodan[®]

TECHNICAL CHEMICALS DEPT., NIAGARA CHEMICAL DIVISION, FOOD MACHINERY AND CHEMICAL CORPORATION, MIDDLEPORT, N.Y.

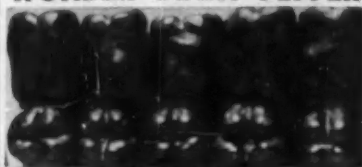
BOUNTIFUL HYBRID



One of the best proven F1 hybrid tomatoes. Early, firm, crack resistant. Large size, superb quality, high yields. Adapted from Gulf States to Canada. Liked by experienced growers in all sections. Try Twilley's Bountiful Hybrid if you have been disappointed in other hybrids.

New, Mosaic Resistant

WONDER GIANT PEPPER



New, first offered in 1961. Mosaic Resistant, more four pointed than the Yolo Wonder strains. Has the large size of California Wonder and Florida Giant. Compact plants; early for a big variety. High yields.

New, Fusarium Resistant

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As It Looks To Me

By JOHN CAREW

Michigan State University, East Lansing

"If you wish to infuriate farmers, talk about unions." But let's face the facts.

The best defense against a unionized agricultural labor force will come from the research laboratories of industry and government. Mechanical harvesters, weed killers, and automated packing lines will solve more labor problems than a dozen farmer delegations to a labor hearing. Not that united action by growers is not valuable; but that a better way to avoid labor troubles is to avoid the need for labor.

The California experiences have shown the strength a union possesses when supported by state politicians and government agencies. Farm labor will become unionized whether farmers are opposed or not. The unions have the funds; they are legally and financially backed by the government; many workers are in an organizing mood; and the public has been conditioned to accept a unionized work force as normal. If the automobile industry could not prevent unionization what hope has a less well-organized agriculture.

The fact that many individual farms will go down in the struggle never to rise again, or that food prices will most surely rise will not matter. Farm labor unions are in the same class as death, taxes, and disease—inevitable.

Talk with food processing or chain store executives about the union situation. You'll find them surprisingly calm and unemotional. They deplore the unneeded truck driver's helper, the meat cutter's unreasonable wage, the arbitrary work rules, and the lower productivity. But they accept them as everyday business problems.

Vegetable growers will do well to recognize the inevitability of unionized help and plan now a program of aggressive action, individually and collectively.

One course of action will be to adopt laborsaving practices and equipment as soon as possible. Every grower who calls himself a manager should know the number of man-hours in the growing and handling of each crop. His constant thought should be, "How can I eliminate the need for this worker?"



With this should come active support, vocal and financial, for experiment station research on labor reduction. The squeaky wheel gets the oil. The exciting success in Michigan, for example, with mechanical harvesters for tomatoes, pickling cucumbers, blueberries, and cherries has demonstrated the merits of close co-operation between growers, equipment firms, and experiment station workers.

Another course of action will be to give farm workers a reason, not a threat, for not wishing to join a union. Bonus plans, salary status, and improved housing can all be effective. Lessons can be learned from a number of non-union business firms.

Agriculture cannot assume the position of opposing all unions—it can oppose only *bad* unions. Therefore, farmers, particularly fruit and vegetable growers who will be most affected, must work for fair and just labor laws and union controls rather than uncompromisingly condemning all unions.

Field Seeded Tomatoes

We had some interesting tomato yields in East Lansing, Mich., this year; 30 tons per acre in a single harvest from direct-seeded plants.

Two field seedings were made, April 29 and May 18, with four varieties. Superphosphate was banded under the row. Half of each planting was made with a seed ribbon developed by Minnesota Mining and Manufacturing Company and the remainder with a Planet, Jr. seeder.

Since the experiment was co-operative with Dr. Stanley Ries, of Michigan State University, and aimed at gaining mechanical harvesting information, a single harvest was made September 13.

Yields were much greater than expected. The weather had been excellent, sprays of maneb applied weekly, and conditions favorable for good growth and high quality fruit:

VARIETY	TONS PER ACRE	
	Seeded April 29	Seeded May 18
Purdue 304 & 305.....	9.4	11.8
(Similar to Epoch)		
Heinz Experimental	25.8	28.2
Fireball	21.1	22.9
C-52		
(Libby, McNeill & Libby)	33.3	32.8

The Heinz Experimental and the C-52 tomatoes were outstanding for their firmness and freedom from cracking.

THE END.

AMERICAN VEGETABLE GROWER

CALENDAR OF COMING MEETINGS AND EXHIBITS

Nov. 1-2—Michigan Agricultural Pesticide Conference, Kellogg Center, Michigan State University, East Lansing.—Michigan State University Information Services, East Lansing.

Nov. 3-4—Washington State Weed Conference, Walla Walla.—Washington Agricultural Extension Service, Pullman.

Nov. 9-10—Illinois State Vegetable Growers' annual meeting, Southern Illinois University, Carbondale.—J. W. Courter, Ext. Specialist, Dixon Springs Experiment Station, Robbs.

Nov. 9-10—Upper Peninsula Potato Show, Escanaba, Mich.—Michigan State University Information Services, East Lansing.

Nov. 14-16—National Potato Council annual meeting, Washington Hotel, Washington, D.C.—A. E. Mercker, Exec. Dir., NPC, 542 Munsey Bldg., Washington, D.C.

Nov. 17-18—Oregon State Horticultural Society annual meeting, Oregon State College, Corvallis.—C. O. Rawlings, Sec'y, Oregon State College, Corvallis.

Nov. 18-24—National Farm-City Week.—National Farm-City Committee, Kiwanis International Bldg., 101 E. Erie St., Chicago 11, Ill.

Nov. 22—Roadside marketing conference, Ohio State University, Columbus.—M. E. Cravens, Dept. of Agricultural Economics, Ohio State University, Columbus.

Nov. 25-26—Iowa State Vegetable Growers' Association annual meeting, Hotel Hanford, Mason City.—C. L. Fitch, Sec'y-Treas., P.O. Box 421, Sta. A, Ames.

Nov. 28-Dec. 1—Vegetable Growers Association of America 52nd annual convention, Milwaukee Auditorium-Arena (Hotel Schroeder, headquarters), Milwaukee, Wis.—Robert M. Frederick, Exec.-Sec'y, 528 Mills Bldg., 17th & Pennsylvania Ave., N.W., Washington 6, D.C.

Nov. 28-Dec. 1—Entomological Society of America annual meeting, Haddon Hall Hotel, Atlantic City, N.J.—E. N. Woodbury, Chairman of Exhibits Committee, ESA, Hercules Powder Co., Wilmington, Del.

Dec. 3—National Onion Association annual meeting, Hotel Sherman, Chicago, Ill.—J. W. Rose, Exec.-Sec'y, NOA, P.O. Box 747, East Lansing, Mich.

Dec. 4-8—National Junior Vegetable Growers Association annual convention, Antler Hotel, Colorado Springs, Colo.—Grant B. Snyder, National Chairman, NJVGA, University of Massachusetts, Amherst.

Dec. 5-6—Connecticut Vegetable Growers Association annual meeting, Hotel Taft, New Haven.—Ray Cocconi, Sec'y, R.F.D. 2, Andover.

Dec. 6-7—Vegetable Growers' Association of New Jersey meeting in conjunction with New Jersey State Horticultural Society, Hotel Dennis, Atlantic City.—W. B. Johnson, Sec'y, Rutgers University, New Brunswick.

Dec. 8—Agricultural Marketing Conference, Ohio State University, Columbus.—M. E. Cravens, Dept. Agricultural Economics, Ohio State University, Columbus.

Dec. 13-14—Fruit-Vegetable Training School for County Agents, Michigan State University, East Lansing.—Michigan State University Information Services, East Lansing.

Jan. 5-6—Indiana Vegetable Growers Association annual meeting, Purdue University, Lafayette.—Kenneth M. Brink, Sec'y-Treas., Purdue University, Lafayette.

Jan. 17-18—New York State Vegetable Growers Association annual meeting in conjunction with Empire State Potato Club and New York State Horticultural Society, Hotel Manger, Rochester.—William B. Giddings, Sec'y, Baldwinsville.



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GREENHOUSE CROPS

The Role of Plant Growing

GROWING tomato plants for the spring greenhouse crop can be your most important job this fall. Success depends upon early and continuous fruit set. All growing techniques should be aimed at producing a controlled plant.

Dr. E. K. Alban, department of horticulture, Ohio State University, talked on plant growing at a recent greenhouse school in the Cleveland, Ohio, area. He stressed that all growth processes of spring crop plants should be at a slow rate. Plants put into the greenhouse during dark days of winter must continue to grow slowly. Light applications of water and nitrogen and moderate temperatures will produce controlled plants.

Edward Drollinger, Jr., Bunker Hill Greenhouse, Medina, Ohio, is one grower who makes use of new research findings. Growers like to visit his greenhouse where changes are always taking place.

Before seed germination is started for the spring crop, Drollinger gets his pots ready. Seedlings left too long in the seed flats because pots are not sterilized or filled with soil may never reach their yield potential.

Drollinger tries to plant four to five days after germination. He has found smaller seedlings with less root development recover faster from the shock of transplanting.

Soil mixtures for plant growing must have built-in controls. Water-holding capacity and nitrogen in potting soils can create unfavorable growth conditions during dark days.

Low nitrogen levels and well-drained potting soils provide two important factors for controlling plant growth.

Dr. Alban suggested that Cleveland greenhouse growers begin with a soil of zero to 5 ppm of nitrate nitrogen. He also recommended adding sand to heavier soils for good drainage, but not too much organic matter.

During transplanting from clay pots, soils that hold together well prevent serious root injury to plants. Where sandy soils prevail, using peat pots may help solve root injury and wilting problems. Wilting cannot be corrected entirely by water which tends to bring on soft vegetative growth on dark winter days and increases root expansion. These factors result in uncontrolled plants.

Drollinger's fall crop plants are grown exclusively in peat pots but he

feels he must have more experience before using peat pots extensively for the spring crop.

In Drollinger's opinion growers must pay more attention to plant growing since good plants determine the success of the crop. He has observed that shapes of tomato fruits are determined shortly after blossoms are around pin-head size. High temperatures at blossom setting may produce smooth fruit and a poor set while low temperatures are associated with roughness in fruits and a heavier set.

The objective of plant growing, Dr. Alban pointed out, is to grow plants at the same rate as you would want them to grow in the greenhouse. In summing up the plant growing principles for the spring tomato crop, he emphasized the importance of fairly slow, continuous growth to produce a constant, uniform fruit set.—*Fred K. Buscher, Cuyahoga County (Ohio) Agent.*

TEXAS TOMATOES

(Continued from page 11)

40x100-foot redwood frame structure, on Knowles' dairy farm.

Schild, Davis, and Dacus also have this size house but the three partners in Colorado Valley Market Garden Farms—F. C. Maseles, Robert M. Oliver, and Sterling Holloway—erected an 80x200-foot ridge-and-trough-type house. They use a single layer of 2 mil polyethylene film; as do most growers in the state. Temperatures are rarely low enough to obtain an economical advantage of fuel saving from two layers of the film.

About the same time that Dr. Emmer developed his usage of plastic film greenhouses for vegetable growing, Prof. A. F. DeWerth, department of floriculture and landscape architecture at Texas A. & M. College, was perfecting a practical evaporative cooling system for greenhouses.

Without such a system it would be hazardous to attempt greenhouse tomato production in Texas. Even in midwinter there often are periods of relatively high temperatures which, when associated with the prevalent high light intensity, can result in greenhouse temperatures much too high for good production.

Most growers are inexperienced in greenhouse management and have relied upon good farm soil preparation practices, although realizing the need for more specialized methods. In a number of cases minor element deficiencies have been found to be a problem, principally magnesium and manganese.

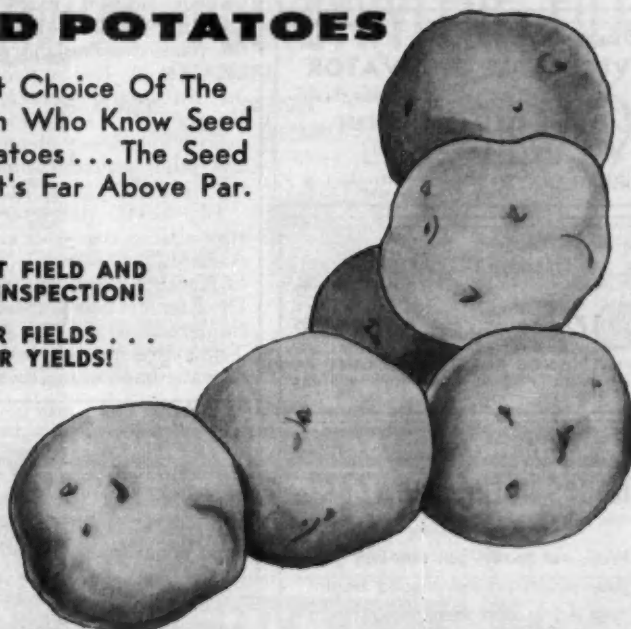
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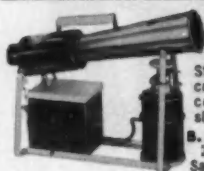
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Willoughby, Ohio

able to correct these before they became serious. Maseles says that research to develop right soil management practices is needed, and the others express the same opinion.

Most of the growers did not make much profit from last year's operations because of the lack of greenhouse management experience. Yet almost to a man they are enthusiastic about the future.

Schild considers his 40x100-foot structure to be a "pilot house" in which he will learn to live with the problems of greenhouse production. Maseles thinks that when greenhouse tomato production is sufficient to meet the demands of Texas consumers, there will be a market outside the state—perhaps even in northern areas presently in production.

Texas Agricultural Experiment Station is conducting research on some of the problems related to greenhouse tomato production. At College Station, variety trials and breeding work are in progress. At the plant disease laboratory at Yoakum, Dr. A. L. Harrison is working on leaf mold resistance, and at Hearne, Dr. D. R. Paterson is investigating minor element deficiency and other soil problems and is testing different plastic films.

Dr. C. C. Singletary, extension specialist in vegetable crops at Texas A. & M., was formerly at University of Kentucky during the period when Dr. Emmert was perfecting the plastic greenhouse. He sums up the Texas greenhouse deal as follows: "I have had contact in former years

with tomato greenhouse growers in Indiana, Kentucky, and southern Ohio. I am amazed to find that higher yields of top quality tomatoes can be produced here in Texas. The problems that growers have had during the past two years are related to poor greenhouse management and lack of experience and skills. These problems will be overcome only through time." **THE END.**

Answer to YOU be the EXPERT!

(See page 15)

This was a clear-cut case of soluble salts injury resulting from over-fertilizing. The telltale clue was the better growth where the rain had leaked through the broken panes and leached out the toxic salts. Diagnosis was made certain when the soil was analyzed using a Solu-Bridge and found to have a K (potassium) value over 300.

The injurious salts concentration resulted when too much fertilizer was applied before planting and was aggravated when more fertilizer was side-dressed.

Fortunately, the grower recognized the problem while the plants were young and corrected it by leaching the flats heavily with water. Next year he will analyze his plant growing soil for soluble salts before planting and fertilize accordingly.

The soil testing unit called Solu-Bridge is made by Industrial Instruments, Inc., 87 Commerce Rd., Cedar Grove, N. J.



CANNERS LOOK AT DWARF TOMATOES

The Raw Products Committee of National Canners Association examines field of Epoch dwarf tomatoes, a variety developed by Purdue University for mechanical harvesting. Members of committee are (left to right) Dr. Oscar C. Zoebisch, director of agricultural research, Libby, McNeill & Libby, Blue Island, Ill.; Les Mayer, chief agronomist, Stokely Van Camp, Indianapolis; Max Reeder, manager, agricultural division, Heinz Co., Pittsburgh; Dr. Stewart G. Younk, in charge of agricultural research, Campbell Soup Co., Camden, N.J.; Dr. Ed. A. Crosby, assistant director, Raw Products Research, National Canners Association. The group got a close-up view of Purdue's mechanical tomato harvester in action.

AMERICAN VEGETABLE GROWER

Answering Your QUESTIONS

Don't let your questions go unanswered. Whether large or small, send them with a four-cent stamp for early reply to Questions Editor, **AMERICAN VEGETABLE GROWER**, Willoughby, Ohio.

EYES WINTER CABBAGE CROP

I'm thinking of trying cabbage as a winter vegetable crop this year. Can you give me some suggestions on varieties, best time to plant, etc.? My truck farm is in San Diego County.—California.

Cabbage, one of the most important winter and spring vegetable crops in California, is planted from late summer through March.

Three varieties should give you high yields of quality heads. The mainstay in your area is Copenhagen Market. Early Cannon Ball, a good yielding, quality variety, is gaining in consumer acceptance. Early Round Dutch is suggested for lower areas that are exposed to winter frosts.

Close spacing has been found to give good yields of the 2- to 2½-pound heads preferred by consumers.

Your county farm advisor's office, Building 1, 4005 Rosecrans St., San Diego 10, can give you additional information about this crop.

SEED FOR L-3 TOMATO NOW AVAILABLE

In your article last fall about the new heat-resistant L-3 tomato developed in Louisiana, you said that seed would be available some time this year. Is it, and what seed company has it?—Florida.

The L-3 tomato has been released to seed companies under the varietal name Red Global, and seed is available from Reuter Seed Co., 320 N. Carrollton Ave., New Orleans, La.

As was reported in our story last fall, the Red Global tomato is resistant to fusarium wilt and foliage diseases as well as heat and has consistently been one of the leading producers in advanced trials at Louisiana Agricultural Experiment Station.

POTATO DIGGER AROUSES INTEREST

In the article on potatoes in your August issue, you pictured double-row harvesters made by the Champion Corporation. What is this company's address?—Pennsylvania.

4714 Sheffield Ave., Hammond, Ind.

GREEN TOMATO STORAGE

Can you give us some advice on the refrigeration of green tomatoes? What temperatures and relative humidity should exist in the cold storage?—Mexico.

For satisfactory ripening, mature green tomatoes should be held at 55° F. or above. At 55° F. they will ripen slowly and remain in good salable condition for two to six weeks. Relative humidity should be 85 to 90% for storage and ripening.

Lower temperatures may weaken the tomatoes and encourage decay. They can be ripened rather rapidly at 70° F. for immediate demand, but the tomatoes are firmer when ripe and usually have less loss from decay when held between 55 to 65° F.

BASKET PRESERVATIVE

I remember an article you printed a year or two ago which mentioned a chemical used to treat baskets in which plants are grown. What chemical was it they used.—New York.

Copper carbamate, made by Harshaw Chemical Co., 1945 E. 97th St., Cleveland 6, Ohio, was mentioned in our March, 1958, article as being used by the Bettinger brothers of northwestern Ohio to prevent decay.

NOVEMBER, 1960

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5,000 to 12,000			\$27.75M	
• 3 inches	1,000 to 9,000	1,000	\$18.90M	37#
10,000 to 24,000			\$17.50M	
• 2½ inches	2,000 to 28,000	2,000	\$10.50M	38#
30,000 to 72,000			\$9.90M	
• 1½ inches	2,500 to 27,300	2,500	\$7.20M	28#
30,000 to 72,500			\$6.70M	

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	sq. Standard	Wt.	Analysis	Wt.
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10,000 to 24,000			\$14.50M	
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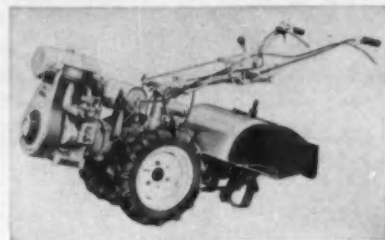


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Versatile and Rugged

Pictured is a piece of machinery that is ready to go to work for you at a moment's notice. The two-wheel



tractor has a 9.2 hp four-cycle Wisconsin engine. There are two models with multi-speed transmission including a very practical crawling speed. There is an adjustable tiller width with rigid and spring tines from 16 to 28 inches. A patented, quick-action coupling permits fast implement change and the central trailer hitch makes an ideal arrangement for drawn implements. Driven by an independent power take-off shaft, the tractor has reversible operation and boasts of more than 40 implements and attachments for just about every vegetable cultural problem. Mike Fain, Universal Tractor Corp., 50 Broad St., New York 4, N. Y., is the one to contact for more information.

Tried and True

A great many of you used plastic mulch this year and found that it accomplished all that had been promised. By laying the plastic mulch down between the rows of seedlings, you saw that it did indeed prevent weed growth, keep moisture in the soil, and keep the ground warmer on those early cool nights. If you

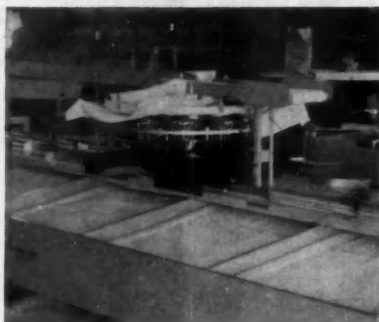


used it with seeds, you found that the seeds germinated more quickly. And because they germinated early, your plants matured faster and were bigger. Growers who haven't used plastic mulch certainly should consider it in their program for next year. The results have been little short of amazing, and I urge you to write E. Olshansky, Science Products Co., 1180 East 63rd St., Chicago, Ill. I know he will be glad to tell you more about it.

New for You

Accurately—Tenderly

Oregon growers are enthusiastic about a new sizing machine which has greater accuracy through the use of calipering cups. The unit works on a new principle of sizing. The calipering cups are mounted in a circle and as they turn, they open. Thus, the smaller vegetables drop out first and the larger ones later. The smaller ones drop onto a belt or series of belts and the larger ones onto other belts. The compact 7 x 12-foot machine handles 220 to 300 pieces a minute. It has 10 spring loader packing bins



and sorting table. A ½ hp motor provides power for the unit. This machine will do it better and cheaper and should be considered in your packing equipment plans. I suggest you write to Mr. Davis, Davis Manufacturing Co., Hillsboro, Ore., for full particulars.

A Popular Subject

Many of you are using polyethylene-covered greenhouses because of the low initial installation cost. You are probably already aware that stronger, longer-lasting film is appearing on the market all the time. Here in Ohio we are now testing a new type of transparent polyethylene which incorporates a non-pigment type of ultraviolet inhibitor. The transparent inhibitor permits the light and warmth of the sun to penetrate the greenhouse, and, at the same time, it prolongs the life of the film. The film is expected to withstand more than two years of northern outdoor exposure with little loss of strength. Polyethylene

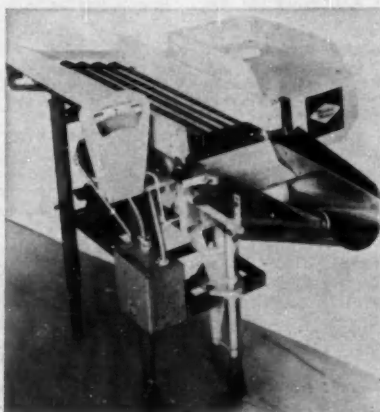
greenhouses, already popular because the greenhouses require a minimum of support and foundation and because the film can be quickly and easily attached to the framing, promise to become even more of a



standard fixture in our industry. Before you build your next greenhouse, why not look into this new film by writing Canton Containers, Inc., 1101 Ninth St., S. E., Canton 7, Ohio.

A New Angle

I watched the operation of a new 45-degree angle bagger in Fairport, N. Y., the other day. This is a departure from the usual 90-degree angle bagger. The produce entered the bagger easily at a 45-degree angle. The bagger was kept full constantly, operating at top capacity, and moved up to 600 bags per hour. With the operator standing at 45 degrees to the supply belt, it was a cinch for him to place the filled bag onto a take-away belt placed at a 45-degree angle in back of him, without pivoting or turning. This eliminated the need for an elevator belt which is required when the take-away belt is placed low under the bagger. The new bagger is small,



compact, and effective. Bill Tew, of Tew Manufacturing Corp., Dept. B, Fairport, N. Y., would be glad, I know, to give you full details on this new Market Maker 45° Angle Bagger.

AMERICAN VEGETABLE GROWER

"CHAIN" BUYING

(Continued from page 13)

can buy them at a lower cost nor because his customers like plums more than anyone else—this man moves a higher plum tonnage than any other division.

Setting Retail Prices—Let's assume that our division produce team interprets the available supply and price forecasts and comes up with head lettuce, peaches, and homegrown potatoes as feature items.

Now they must establish retail prices with customer appeal and still make the gross profit required of their department. An estimated shrinkage of 4 to 5% is taken into account so they aim for an average markup on the complete produce list which takes this shrinkage factor into account.

This markup is based on *selling price—not cost*; selling price minus cost divided by selling price. A 35% markup on apples means that apples selling for 69 cents in the store cost 45 cents delivered to the warehouse. Similarly cauliflower sold to the chains for 25 cents and retailed at 50 cents has a 50% markup.

To create a favorable price impression with Mrs. Consumer, in

other words, to write a newspaper ad that pulls her into the store, the feature items will probably be sold at considerably below the 35% markup, perhaps at only 5 to 10%, and occasionally at cost. Their exact price depends upon anticipated competition from neighboring supermarkets and estimated cost. To achieve the average 35% for the produce department as a whole, other items will be priced above 35%. These retail prices will apply generally throughout a given division. Items advertised must be sold at that price. Others may be adjusted slightly at the discretion of the manager.

Growers frequently blame these price-cutting promotions for disaster prices. For many producers the prices offered by cost-conscious buyers may be below breakeven for that particular product.

But another side of the story exists. For instance, the Detroit division planned a promotion on Canadian lettuce. A firm advance price was agreed upon with the growers and newspaper ads published. But high temperatures caused tipburn, and the lettuce was unacceptable at the warehouse. Rollers out of California had to be purchased at a considerably higher cost with no change in retail

price possible. It was a "poor" week for the produce buyer.

Retail Prices Don't Always Follow Farm Costs—It is apparent that while store prices generally follow prices paid to growers, merchandising requirements dictate wide fluctuations. Cantaloupes selling four for \$1 at 11% markup one week may be marked at 39 cents apiece the next week while another fruit item is being featured. Meanwhile the prices paid to the melon shipper would have remained unchanged.

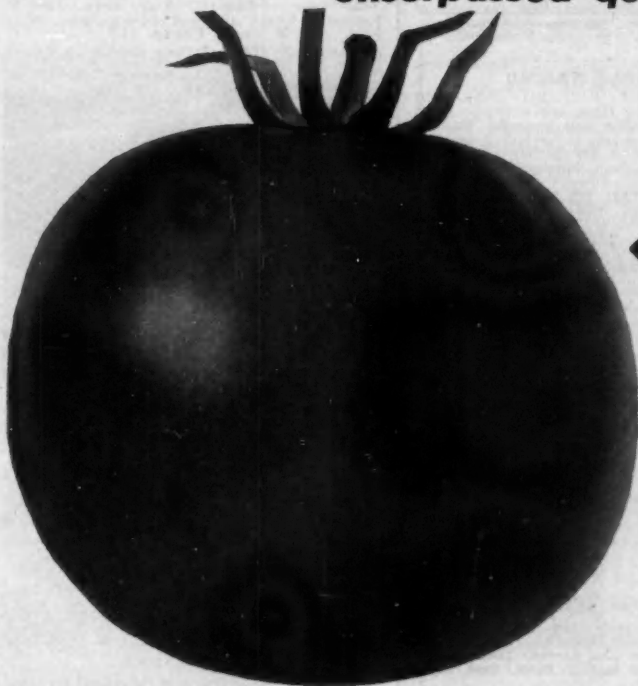
Furthermore, percentage markup does not always follow a logical pattern. The traditionally high markup on cabbage and low one for strawberries is not related to shrinkage.

In this respect food chains are in a crossfire. When they sell chickens at cost they are accused of depressing the market. But when the onion markup is high, suppliers accuse them of failure to promote. A uniform markup on all items, as fair as it might sound, would limit the ability of stores to merchandise competitively.

In Part 2, to appear in the December issue, Dr. Carew will discuss what the grower must do to survive mass distribution marketing.—Ed.

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MAKE BIG MONEY RAISING RABBITS FOR us. Information 25c. KEENEY BROTHERS, New Freedom, Penna.

FOR SALE—PROFITABLE NURSERY. Avocado grove and high pine land 25 miles south of Miami in fast growing appreciating area, new air conditioned home completely furnished. For particulars, write Box No. 117, AMERICAN VEGETABLE GROWER, Willoughby, Ohio.

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SEPTIC TANKS, CESSPOOLS, OUTDOOR toilets. Keep clean and odorless with Northel Septic Tank Reactivator. Bacterial concentrate breaks up solids and grease—prevents overflow, back-up, odors. Regular use saves costly pumping or digging. Simply mix dry powder in water—flush down toilet. Non-poisonous, non-caustic. Six months supply only \$2.95, postpaid (money-back guarantee of satisfaction), or rush postcard for free details. NORTHTEL, FV 11, Box 1103, Minneapolis 40, Minnesota.

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NEED WORKERS??? HARD WORKING farmers and ranchers (men only) from central Mexico want permanent year around jobs in U.S.A. Allow 5 to 6 months for arrival of workers. For free details, write: S. D. CORONA (AFVG), Apartado 184, Guadalajara, Mexico.

WANTED TO BUY

SWEET CORN HARVESTER. SEND IN- formation and price to AMERICAN VEGETABLE GROWER, Box 118, Willoughby, Ohio.

USED POLYETHYLENE MULCHING FILM. BETHEL GENTRY, McEwen, Tennessee.

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PEPPERS

Under Wraps

THAYER P. JONES of Hamden, Conn. is one grower who likes to keep his pepper plants under wraps. Each fall he covers them with a plastic covered wire mesh to protect them from frost.

Although the covering has a high initial cost, Jones has found it can be used for 15 to 20 years if properly handled. It can be quickly put over and taken off plants. Two men can place about 5000 feet of it in a day.

"We put wires underneath it every 12 to 15 feet and then roll the covering over them. The covering is wired down about every 7 feet," Jones explained. "It has protected produce against temperatures as low as 23°F."

Jones, a commercial grower, has about 25 acres of vegetables and small fruits. Most of his produce is sold on a pick-your-own basis or at his roadside stand.

"We start using the wrap in the spring for rhubarb," Jones said, "and later for squash, melons, cucumbers, tomatoes, and peppers."

According to Jones, the biggest drawback with using the wrap is rodents.

"It did the job of protecting the peppers from frost," he pointed out, "but it also protected all the rodents in the vicinity. We find that we have to put poison under the glass for them."

Plastic-covered wire mesh is made under the trade names of Celglass (Arvey Corp., 3500 N. Kimball, Chicago 18) and Screen-Glass (Warp Bros., 1104 N. Cicero, Chicago 51.).



Jones checks wrap covering pepper plants.

GIANT SEED TRIAL

SEED Research Specialists, Inc., a three-year-old marketing-research combination of six well-established vegetable seed companies, recently held an open house in Hollister, Calif. Purpose was to acquaint growers and members of the agricultural press with the extensive seed trial program the organization conducts.

Almost 40 acres are devoted to trial

AMERICAN VEGETABLE GROWER



Part of gigantic seed trials of Seed Research Specialists, Inc., at Waldo Rohnert Co., Hollister, Calif. Pictured are bean plants.

grounds, research laboratories, and processing plants at Waldo Rohnert Co. ranch in Hollister, one of the SRS member companies. Nearly 4000 strains of 44 different vegetables are grown there.

In addition to the selections of the six member companies, commercial selections of competitors are planted under uniform conditions to check performance. In this way vegetable strains available to growers throughout the country are accessible for inspection under actual growing conditions.

Goal of the seed trial program is to make available to the commercial grower seed that will produce superior yields of higher quality vegetables.

SRS members besides Waldo Rohnert Co., which has operated as row crop seed specialists since 1893, are Lawrence Robinson & Sons, Modesto, Calif., vine crop seed specialists; Clarence Brown Co., Modesto, Calif., tomato and pepper seed specialists; Sweet Corn Research, Inc., Ames, Iowa, hybrid sweet corn specialists; Wisconsin Cabbage Seed Co., Racine, Wis., specialists in yellows-resistant cabbage seed; and Rohnert of Idaho, Twin Falls, Idaho, specialists in peas and beans.

STORY OF REVOLUTION

THE dramatic change from horse-power operations to the age of pushbutton automation is the theme of *Power to Produce*, the 1960 Yearbook of Agriculture.

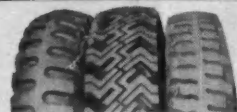
In text, photographs, charts, and drawings the story of the development of tractors, electricity, communications, power on the land, harvesting methods, developments in handling livestock, mechanization of marketing, farm buildings, efficiency of labor, effects of power, and power in the future is dramatically told.

Single copies of *Power to Produce* may be obtained by writing your Congressman. Additional copies may be purchased at \$2.25 each from Superintendent of Documents, Washington 25, D. C.

NOVEMBER, 1960

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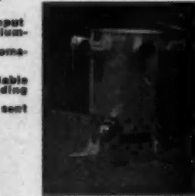


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Christmas, Bah, Humbug!!

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Be sure to order early—This Christmas offer expires on December 25.

● **Vegetable Growing** by James E. Knott. General principles of equipment, seed supply, soil preparation and fertilization, irrigation, insect and disease control, storage, and marketing are covered in the new fifth edition. The last half of the book is devoted to detailed discussions of the proper production of 71 different cool and warm season crops. 358 pages. \$5.00

● **Concentrated Spray Equipment, Mixtures and Methods of Operation**, by S. F. Potts. Here's a book for growers as well as teachers, research and extension workers, and students. 600 pages. \$12.50

● **Profitable Roadside Marketing**, by R. B. Donaldson and W. F. Johnstone. A practical handbook for the successful operation of a roadside market. 142 pages. \$2.00

● **Pesticide Handbook**, by Donald E. H. Frear. 12th edition, just published. Lists trade names, active ingredients, uses and manufacturers of spray chemicals and pesticide equipment. 216 pages. \$1.50

● **Principles of Weed Control**, by Ahlgren, Klingman, and Wolf. Here are the interesting

facts, fundamentals, and revolutionary control techniques of this new, fast-moving science. Easy to understand. 348 pages. \$4.00

● **Spraying, Dusting and Fumigating of Plants**, by W. S. Hough and A. F. Mason. A revised edition telling how to apply insecticides, fungicides, soil fumigants, herbicides, and growth regulators. Spray materials and equipment, and recommended applications for fruit and vegetable crops are discussed in detail. 726 pages. \$4.75

● **Vegetable Growing** by James S. Shoemaker. How, when, and where you can profitably produce 40 different vegetables. Based on up-to-date findings, the book discusses time and depth of planting, harvesting, storage and marketing. Much new material on hybrid seeds is contained in the new second edition. 515 pages. \$4.50

● **The Tomato** by Paul Work. Here is a practical treatise on the tomato for the amateur as well as the commercial grower. It includes discussions on characteristics; methods of planting; fertilization; cultivation; harvesting and marketing; and insects and diseases. 136 pages. \$2.50

Books sent postpaid on receipt of check or money order.

AMERICAN VEGETABLE GROWER

Willoughby, Ohio

Are These Starvation Wages?

IS the Simon Legree image of the grower presented in our metropolitan newspapers beginning to crumble? Few newspapers have been more vehement in their attacks on the grower and his "exploitation" of migrant workers than the *New York Times*. Yet, in the last few weeks there has been a noticeable weakening in the editorial voice of this great newspaper.

That the *New York Times* has begun to consider both sides of the migrant labor question is evident in their editorial of August 31, 1960. "It is unfair to say that the large scale agriculturist 'exploits' these migrants. The landowner, too, is caught in a kind of trap. He cannot possibly afford to keep several hundred hired men all year round in order to pick one crop of cherries or string beans. The best that can seemingly be done

is to see to it that the wanderer's temporary lodgings are sanitary and not too crowded, that his pay is not at a starvation level."

A look at the wages earned by migrant workers during the tomato harvest in New Jersey this summer should remove any doubt about "pay at a starvation level." Fred Watts, Farm Placement Service director, reports some of the Puerto Rican pickers were earning more than \$100 a week. Throughout the state, migrants are reported to have earned an average of \$70 a week during the tomato harvest. We doubt if the *Times* would call these starvation wages.

The "mellowing" of the editorial position of the *New York Times* is an excellent example of how better public relations can help the city dweller to understand the problems of the grower.

Time to Pull Up Our Socks

RIGHT now, in what is generally regarded as an enlightening age, we are in considerable danger of scaring ourselves to death—or more accurately, scaring ourselves into starvation, which amounts to the same thing in the end.

That's the startling way in which the Cortland (N.Y.) *Standard* sums up the situation which shocked vegetable and fruit growers awhile ago.

Obviously, the *Standard* goes on to say, we are not referring to our fear of sudden atomic obliteration by the Russians or even more leisurely demise from fall-out. Rather we would call attention to our panic-potential over pesticides—as demonstrated last November by a cabinet officer who frightened us out of our Thanksgiving cranberry sauce. (It now develops that we were also frightened out of about \$10 million of our tax money which the White House has said will be paid to unoffending growers for the loss of their 1959 market.)

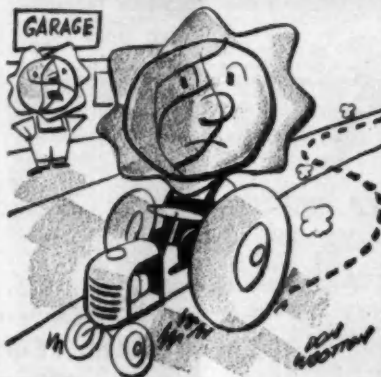
It is true that this modern age has developed powerful insecticides and other pesticides to enable farmers to produce the meat, milk, grains, fruits, and vegetables that 180 million people require for three meals a day every day in the year—and to withstand such blights as the fungus diseases that caused the potato famine in Ireland in 1845.

Similarly it has required potentially dangerous chemicals to conquer ma-

laria in the U.S. and to protect humanity at large from yellow fever, dengue, the plague—which killed as many as 7000 Londoners a day in 1665, typhus which swept Ireland as an aftermath of the potato famine, and other epidemic horrors of the past. And certainly it took high-powered stuff to kill 20 billion grasshoppers in a single day of 1949 in the Midwest. What the consequences of this infestation might have been without suitable chemical defense is a grim speculation.

But, historically, the struggle between fiction, fear, and fact has been

VEGETABLE CONVENTION



"Nothing's wrong with his steering . . . he owes me \$6.02."

an unequal battle. When sensationalism comes in the door, fact flies out the window, to paraphrase the old saw. When a public official presses the panic button, we forget that we have developed controls and specific rituals of proper usage and laws to enforce them along with the production of these powerful pesticides. And we forget, too, that in these modern days we regularly, even heedlessly, employ mighty machinery and high-tension electricity—forces that, out of control, could destroy us.

When we fear the pesticides that assure us food and protection from

QUOTE-OF-THE-MONTH

"The man who actually tills the soil is the man who is the foundation of our whole structure . . ."

—Theodore Roosevelt

the horrors of the great plagues of the past, we fear the wrong thing. Rather, we should fear these guardians may be inadequate or insufficient to the survival of the 350 million Americans of 2000 A.D.—only 40 years hence!

Alertness Pays!

A TRACTOR is a highly essential piece of equipment in the operation of a vegetable farm. But careless operation can turn that useful machine into a lethal weapon. In Ohio alone, 18 people were killed in tractor accidents in the first five months of 1959. Two-thirds of the fatalities were full-time growers.

These accidents could have been prevented if the growers had followed the following basic rules:

Always hitch to the drawbar for pulling a load.

Slow down when making turns.

Be especially alert for hidden stumps, stones, or ditches.

Allow the tractor to carry only one passenger—the driver. Keep children off.

Always shut off the power and let the engine cool before filling the fuel tank.

Plan your work to do necessary highway travel when traffic is lightest.

Coming Next Month

- Slumbering Giant Below the Rio Grande
- Meet the Exhibitors at VGAA's Convention
- How Florida Growers Combat Pepper Virus



Mr. Buck, shown above, is a supplier of early spring vegetable plants to the Rocky Mountain region. One of his best known products is Buck Brand Famous Colorado Pascal Celery.

"VAPAM® cleaned my soil... cut costs."

Says: Mr. John Buck, Denver, Colo., nurseryman

He continues, "I've grown vegetable plants under glass for 14 years. Weeds, soil fungi and damping off have been a continuous problem. This year I treated my soil with VAPAM soil fumigant, and am happy to report that these problems have been eliminated. My plants were vigorous, the stand was perfect. Money saved in time and labor caring for the plants was triple the cost of VAPAM."

One pre-plant application of VAPAM soil fumigant knocks out most soil pests. Nurserymen have discovered a two-way benefit: (1) Reduced work and expense for weeding and cultivating, and (2) better, more vigorous plants that sell for more profit.

VAPAM is a liquid fumigant that doesn't require special application equipment, and does not leave harmful residues in the soil after the fumigant disappears. Application methods, rates and other details are on the label.

Clean your soil with VAPAM. See your local supplier, or write for further information to Stauffer Chemical Company, 380 Madison Avenue, New York 17, N. Y.

Stauffer is one of America's largest specialists in farm chemicals. Use Stauffer brand INSECTICIDES, FUNGICIDES, WEED KILLERS, MITICIDES, SEED PROTECTANTS, FUMIGANTS, GROWTH REGULATORS, GRAIN PROTECTANTS, DEFOLIANTS.
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- heavy yielding
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